

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL030420\  
 Data File : VL034778.D  
 Acq On : 4 Mar 2020 2:42  
 Operator : SY/AP  
 Sample : VSTDIC001  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC001

Manual Integrations  
 APPROVED

apatel  
 3/4/2020 4:45:00 PM

Quant Time: Mar 04 06:16:45 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL030420AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_LWed Mar 04  
 QLast Update : Wed Mar 04 05:54:58 2020  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.68  | 49   | 1119437  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.20  | 114  | 2329350  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.14 | 117  | 2306286  | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.47  | 95    | 1922878  | 10.17    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 101.70% |

| Target Compounds               | R.T. | QIon | Response | Conc  | Units  | Ovalue |
|--------------------------------|------|------|----------|-------|--------|--------|
| 2) Dichlorodifluoromethane     | 3.02 | 85   | 215307   | 1.220 | ppbv   | 90     |
| 3) Chlorodifluoromethane       | 2.96 | 51   | 138537   | 1.143 | ppbv   | 99     |
| 4) Chloromethane               | 3.12 | 50   | 72606    | 1.080 | ppbv   | 100    |
| 5) Vinyl Chloride              | 3.24 | 62   | 71695    | 1.084 | ppbv   | 95     |
| 6) Bromomethane                | 3.46 | 94   | 41815    | 1.081 | ppbv   | 90     |
| 7) Chloroethane                | 3.54 | 64   | 27465    | 1.123 | ppbv   | 99     |
| 8) Dichlorotetrafluoroethane   | 3.17 | 85   | 170813   | 1.095 | ppbv   | 99     |
| 9) Propene                     | 2.99 | 41   | 51772    | 1.027 | ppbv   | 100    |
| 10) Heptane                    | 8.16 | 43   | 130774   | 1.006 | ppbv   | 97     |
| 11) Trichlorofluoromethane     | 3.94 | 101  | 179785   | 1.162 | ppbv   | 98     |
| 12) 1,1,2-Trichlorotrifluoroet | 4.48 | 101  | 121058   | 1.114 | ppbv   | 97     |
| 13) Ethanol                    | 3.60 | 45   | 21753m   | 1.370 | ppbv   |        |
| 14) Bromoethene                | 3.73 | 108  | 49541    | 1.087 | ppbv   | 97     |
| 15) Acetone                    | 3.85 | 43   | 145189   | 1.137 | ppbv   | 96     |
| 16) 1,3-Butadiene              | 3.31 | 39   | 62667    | 1.057 | ppbv   | 98     |
| 17) tert-Butyl alcohol         | 4.29 | 59   | 124309m  | 1.269 | ppbv   |        |
| 18) 1,1-Dichloroethene         | 4.29 | 96   | 53554    | 1.097 | ppbv   | 98     |
| 19) Isopropyl Alcohol          | 3.96 | 45   | 92174m   | 1.210 | ppbv   |        |
| 20) Methylene Chloride         | 4.34 | 84   | 53650m   | 1.134 | ppbv   |        |
| 21) Allyl Chloride             | 4.41 | 41   | 88843    | 1.062 | ppbv   | 98     |
| 22) trans-1,2-Dichloroethene   | 4.89 | 96   | 51055    | 1.083 | ppbv   | 89     |
| 23) Vinyl Acetate              | 5.08 | 43   | 184322   | 1.062 | ppbv   | 99     |
| 24) 1,1-Dichloroethane         | 5.01 | 63   | 142943   | 1.034 | ppbv   | 98     |
| 25) Ethyl Acetate              | 5.69 | 43   | 246634   | 1.090 | ppbv   | 98     |
| 26) Hexane                     | 5.70 | 57   | 103896   | 0.999 | ppbv   | 92     |
| 27) Carbon Disulfide           | 4.55 | 76   | 117867   | 1.009 | ppbv # | 90     |
| 28) Methyl tert-Butyl Ether    | 5.04 | 73   | 162010   | 1.093 | ppbv   | 99     |
| 29) Chloroform                 | 5.76 | 83   | 183687   | 1.108 | ppbv   | 89     |
| 30) Cyclohexane                | 7.16 | 84   | 74355    | 0.922 | ppbv   | 96     |
| 31) cis-1,2-Dichloroethene     | 5.56 | 61   | 105507   | 1.031 | ppbv   | 92     |
| 32) 1,1,1-Trichloroethane      | 6.54 | 97   | 158926   | 1.023 | ppbv   | 96     |
| 34) 2-Butanone                 | 5.26 | 43   | 161186   | 1.096 | ppbv   | 99     |
| 35) Carbon Tetrachloride       | 7.04 | 117  | 166490   | 1.066 | ppbv # | 94     |
| 36) Benzene                    | 6.92 | 78   | 203002   | 1.011 | ppbv   | 95     |
| 37) 1,2-Dichloroethane         | 6.33 | 62   | 138806   | 1.087 | ppbv   | 99     |
| 38) Trichloroethene            | 7.87 | 130  | 76131m   | 0.982 | ppbv   |        |
| 39) 1,2-Dichloropropane        | 7.65 | 63   | 84192    | 1.057 | ppbv   | 92     |
| 40) 1,4-Dioxane                | 7.89 | 88   | 32553m   | 1.201 | ppbv   |        |
| 41) Tetrahydrofuran            | 6.08 | 42   | 79526m   | 1.032 | ppbv   |        |
| 42) Bromodichloromethane       | 7.82 | 83   | 172913   | 1.035 | ppbv # | 95     |
| 43) Methyl Methacrylate        | 8.05 | 69   | 79504    | 0.942 | ppbv   | 93     |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL030420\  
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 Operator : SY/AP  
 Sample : VSTDIC001  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC001

Manual Integrations  
 APPROVED

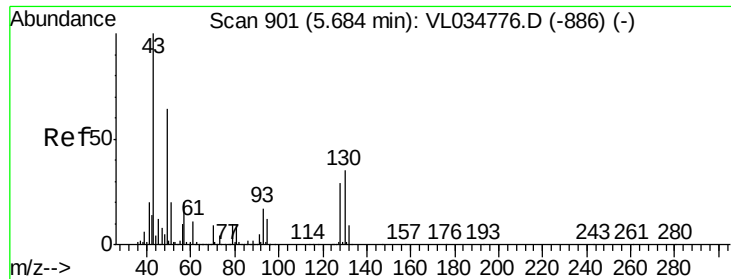
apatel  
 3/4/2020 4:45:00 PM

Quant Time: Mar 04 06:16:45 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL030420AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_LWed Mar 04 06:16:45 2020  
 QLast Update : Wed Mar 04 05:54:58 2020  
 Response via : Initial Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|-------|--------|----------|
| 44) 2,2,4-Trimethylpentane    | 7.90  | 57   | 366594   | 1.045 | ppbv   | 99       |
| 45) t-1,3-Dichloropropene     | 9.32  | 75   | 75979m   | 0.829 | ppbv   |          |
| 46) cis-1,3-Dichloropropene   | 8.74  | 75   | 100613   | 0.914 | ppbv   | 98       |
| 47) 1,1,2-Trichloroethane     | 9.52  | 97   | 85263    | 1.037 | ppbv   | 92       |
| 48) Dibromochloromethane      | 10.35 | 129  | 127644   | 0.995 | ppbv   | 98       |
| 49) Bromoform                 | 13.10 | 173  | 109268   | 0.978 | ppbv   | 100      |
| 50) 4-Methyl-2-Pentanone      | 8.79  | 43   | 219207   | 1.050 | ppbv   | 97       |
| 51) 2-Hexanone                | 10.19 | 43   | 160545   | 0.977 | ppbv # | 97       |
| 52) Tetrachloroethene         | 11.28 | 164  | 71600    | 0.968 | ppbv   | 89       |
| 53) Toluene                   | 9.85  | 91   | 213062   | 0.997 | ppbv   | 96       |
| 54) 1,2-Dibromoethane         | 10.66 | 107  | 127903m  | 1.042 | ppbv   |          |
| 56) 1,1,1,2-Tetrachloroethane | 12.18 | 131  | 109729   | 1.106 | ppbv # | 1        |
| 57) Chlorobenzene             | 12.20 | 112  | 187742m  | 1.100 | ppbv   |          |
| 58) Ethyl Benzene             | 12.77 | 91   | 294016   | 1.048 | ppbv   | 100      |
| 59) m/p-Xylene                | 13.05 | 91   | 521615m  | 2.143 | ppbv   |          |
| 60) o-Xylene                  | 13.74 | 91   | 273095   | 1.126 | ppbv   | 91       |
| 61) Styrene                   | 13.59 | 104  | 149887   | 0.965 | ppbv   | 98       |
| 62) Isopropylbenzene          | 14.73 | 105  | 395540   | 1.118 | ppbv   | 97       |
| 63) 1,1,2,2-Tetrachloroethane | 13.73 | 83   | 199702m  | 1.057 | ppbv   |          |
| 64) n-propylbenzene           | 15.63 | 120  | 95719m   | 1.050 | ppbv   |          |
| 65) tert-Butylbenzene         | 16.81 | 119  | 336153   | 1.098 | ppbv   | 96       |
| 66) Benzyl Chloride           | 17.06 | 91   | 83497m   | 0.752 | ppbv   |          |
| 67) sec-Butylbenzene          | 17.36 | 105  | 491433   | 1.113 | ppbv   | 98       |
| 69) p-Isopropyltoluene        | 17.72 | 119  | 390758   | 1.075 | ppbv   | 98       |
| 70) n-Butylbenzene            | 18.61 | 91   | 425099m  | 1.073 | ppbv   |          |
| 71) 2-Chlorotoluene           | 15.51 | 91   | 288529   | 1.050 | ppbv   | 98       |
| 72) 4-Ethyltoluene            | 15.90 | 105  | 281903   | 1.042 | ppbv   | 99       |
| 73) 1,3,5-Trimethylbenzene    | 16.06 | 105  | 275343   | 1.056 | ppbv   | 89       |
| 74) 1,2,4-Trimethylbenzene    | 16.83 | 105  | 309477   | 1.074 | ppbv # | 87       |
| 75) 1,3-Dichlorobenzene       | 17.06 | 146  | 188952   | 1.136 | ppbv   | 98       |
| 76) 1,4-Dichlorobenzene       | 17.20 | 146  | 171495m  | 1.033 | ppbv   |          |
| 77) 1,2-Dichlorobenzene       | 17.88 | 146  | 170394   | 1.061 | ppbv   | 99       |
| 78) Hexachloro-1,3-Butadiene  | 23.45 | 225  | 150032m  | 1.084 | ppbv   |          |
| 79) Naphthalene               | 22.30 | 128  | 188602   | 0.743 | ppbv # | 93       |
| 80) Naphthalene, 2-methyl-    | 25.04 | 142  | 31305m   | 0.400 | ppbv   |          |
| 81) 1,2,4-Trichlorobenzene    | 22.02 | 180  | 128595m  | 0.846 | ppbv   |          |

(#) = qualifier out of range (m) = manual integration (+) = signals summed





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.68 min Scan# 900

Delta R.T. -0.00 min

Lab File: VL034778.D

Acq: 4 Mar 2020 2:42

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC001

Tot Ion: 49 Resp: 1119437

Ion Ratio Lower Upper

49 100

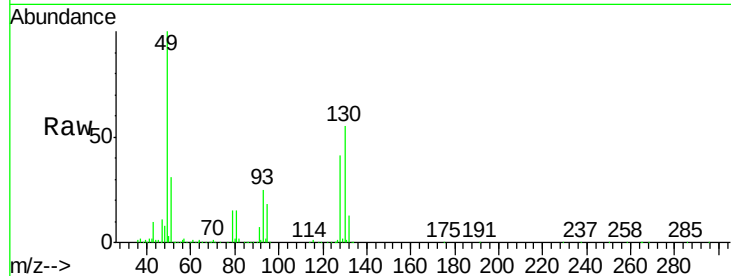
128 43.6 21.6 64.6

130 55.7 27.4 82.2

Manual Integrations  
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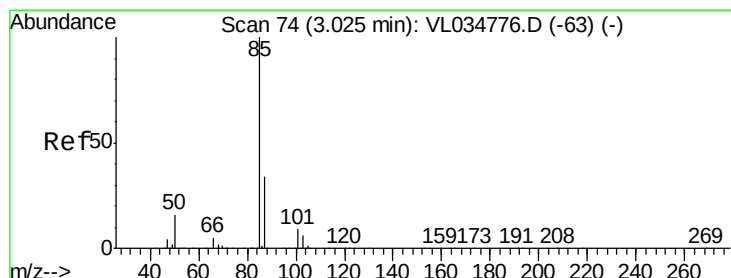
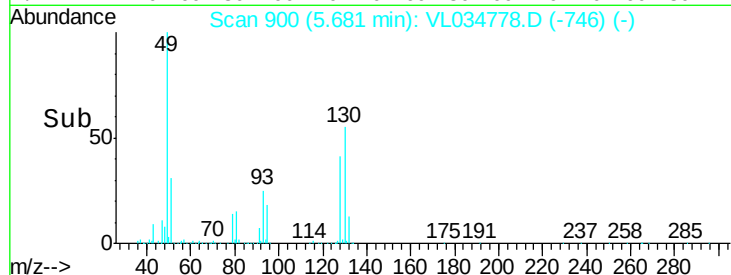
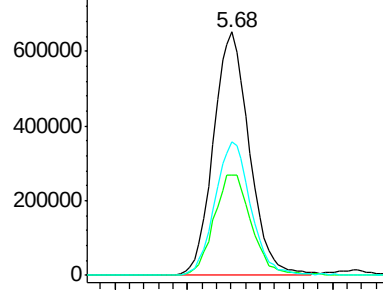
3/4/2020 4:45:00 PM



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 1.220 ppbv

RT: 3.02 min Scan# 74

Delta R.T. -0.00 min

Lab File: VL034778.D

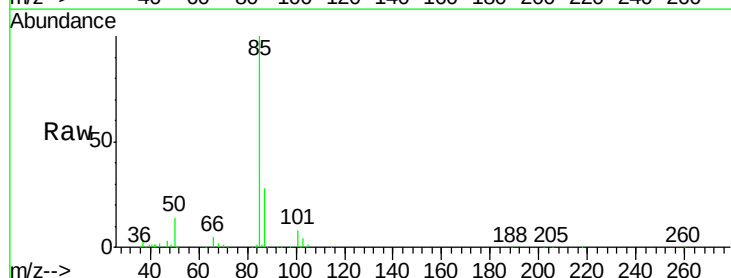
Acq: 4 Mar 2020 2:42

Tgt Ion: 85 Resp: 215307

Ion Ratio Lower Upper

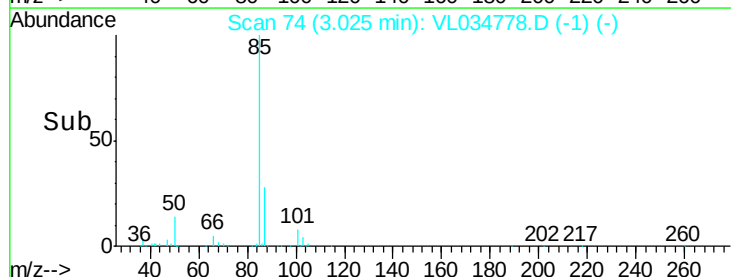
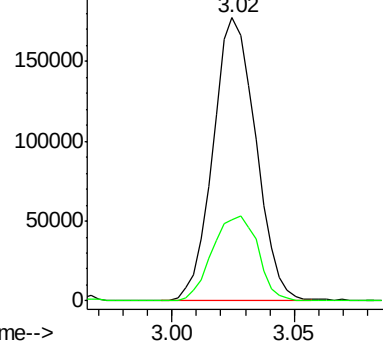
85 100

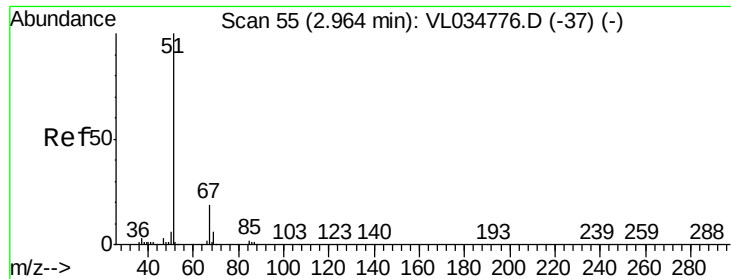
87 28.5 27.2 40.8



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





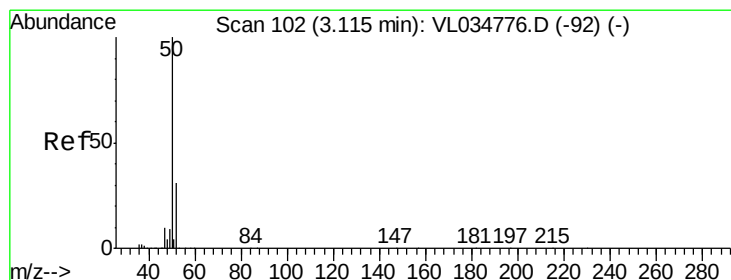
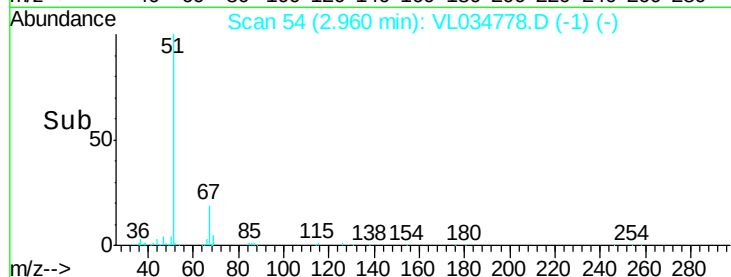
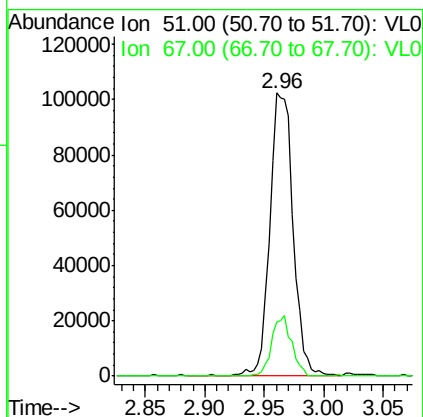
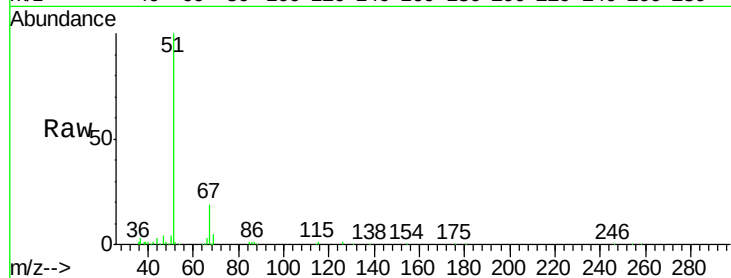
#3  
Chlorodifluoromethane  
Concen: 1.143 ppbv  
RT: 2.96 min Scan# 54  
Delta R.T. -0.00 min  
Lab File: VL034778.D  
Acq: 4 Mar 2020 2:42

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC001

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 51      | 100   |       |       |
| 67      | 18.5  | 15.3  | 22.9  |

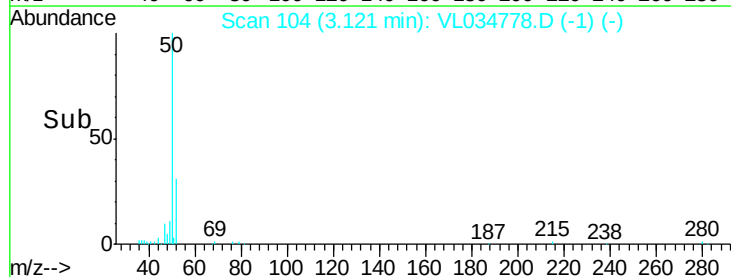
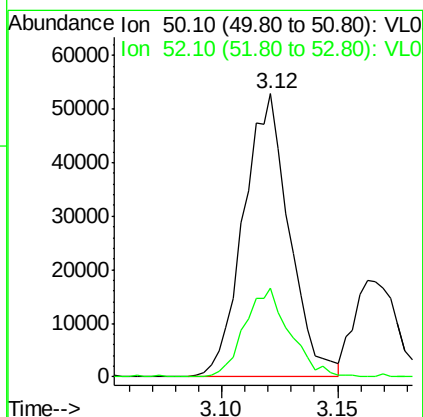
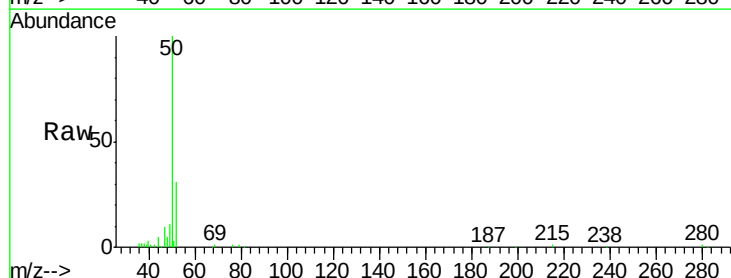
Manual Integrations  
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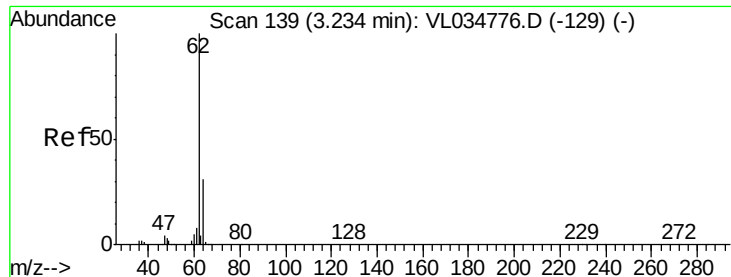
apatel  
3/4/2020 4:45:00 PM



#4  
Chloromethane  
Concen: 1.080 ppbv  
RT: 3.12 min Scan# 104  
Delta R.T. 0.01 min  
Lab File: VL034778.D  
Acq: 4 Mar 2020 2:42

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 50      | 100   |       |       |
| 52      | 31.4  | 25.0  | 37.4  |





#5

Vinyl Chloride

Concen: 1.084 ppbv

RT: 3.24 min Scan# 140

Delta R.T. 0.00 min

Lab File: VL034778.D

Acq: 4 Mar 2020 2:42

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC001

Tot Ion: 62 Resp: 71695

Ion Ratio Lower Upper

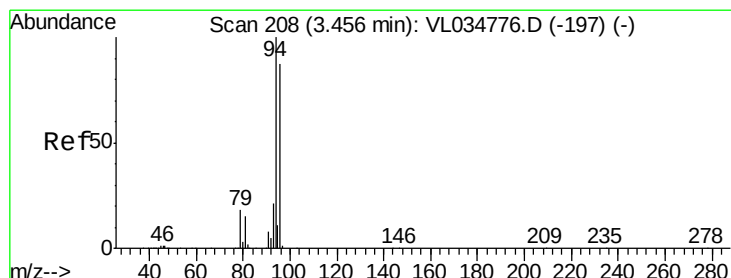
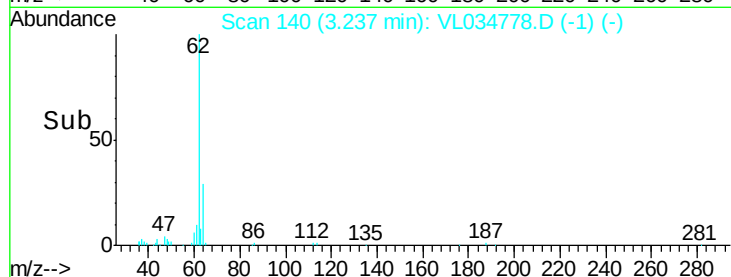
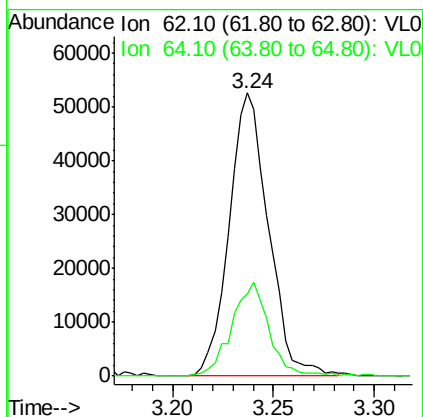
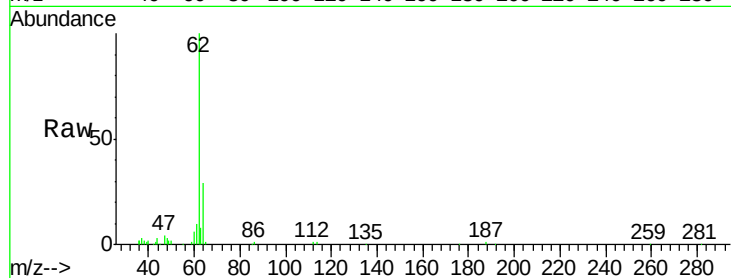
62 100

64 28.9 25.1 37.7

Manual Integrations  
APPROVED

apatel

3/4/2020 4:45:00 PM



#6

Bromomethane

Concen: 1.081 ppbv

RT: 3.46 min Scan# 209

Delta R.T. 0.00 min

Lab File: VL034778.D

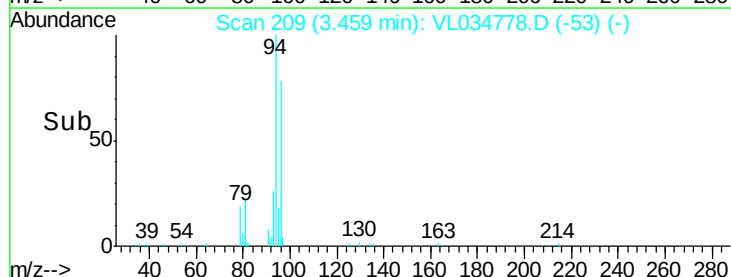
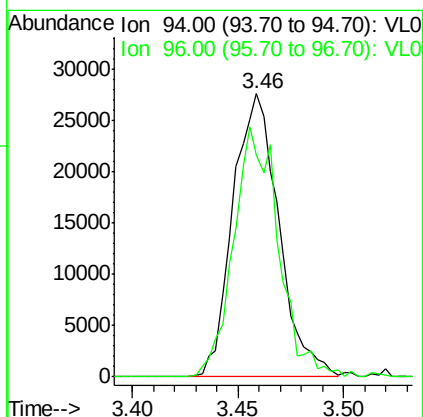
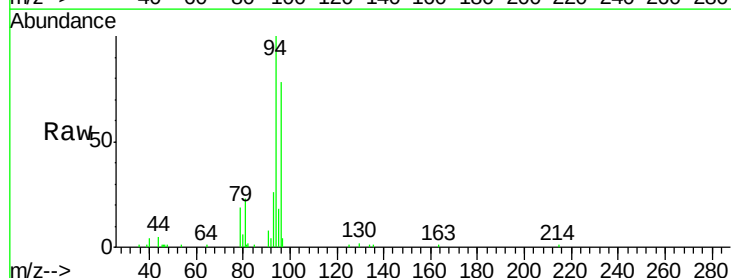
Acq: 4 Mar 2020 2:42

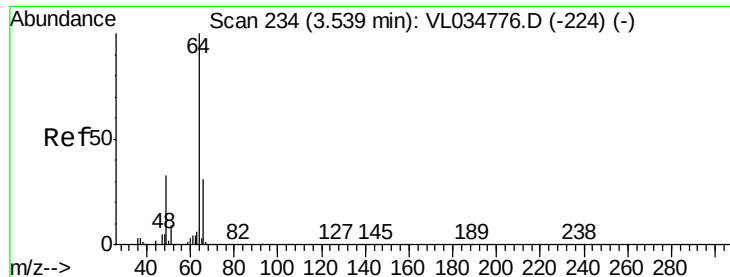
Tgt Ion: 94 Resp: 41815

Ion Ratio Lower Upper

94 100

96 78.4 70.0 105.0





#7

Chloroethane

Concen: 1.123 ppbv

RT: 3.54 min Scan# 235

Delta R.T. 0.00 min

Lab File: VL034778.D

Acq: 4 Mar 2020 2:42

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC001

Tot Ion: 64 Resp: 27465

Ion Ratio Lower Upper

64 100

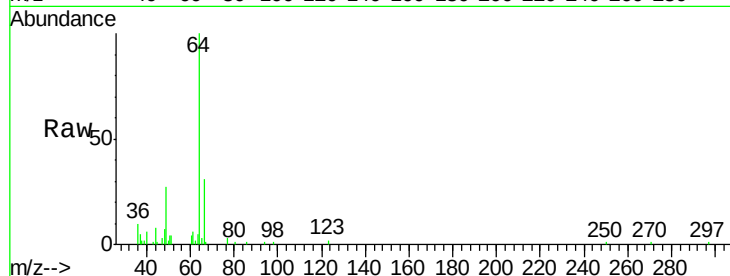
66 31.4 24.8 37.2

Manual Integrations

APPROVED

apatel

3/4/2020 4:45:00 PM



Abundance Ion 64.10 (63.80 to 64.80): VL0

Ion 66.10 (65.80 to 66.80): VL0

3.54

25000

20000

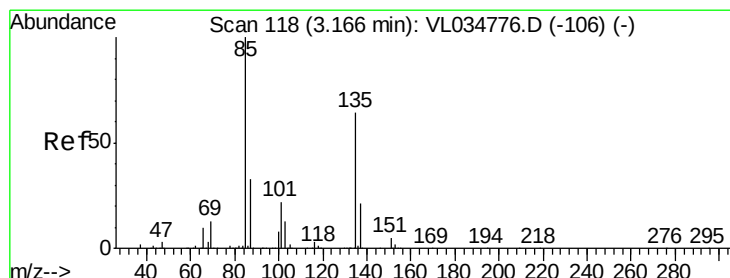
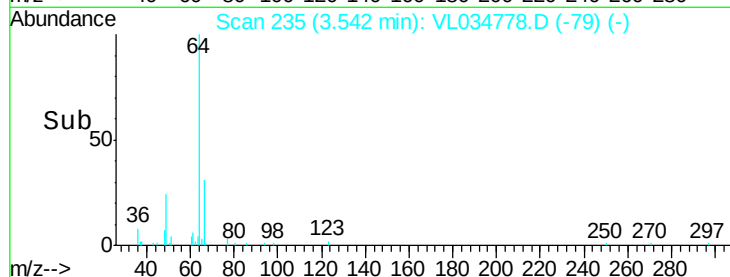
15000

10000

5000

0

Time-->



#8

Dichlorotetrafluoroethane

Concen: 1.095 ppbv

RT: 3.17 min Scan# 119

Delta R.T. 0.00 min

Lab File: VL034778.D

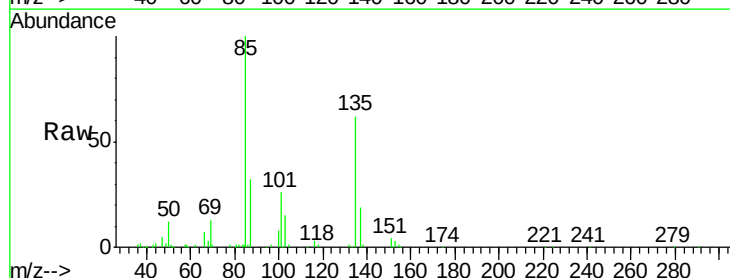
Acq: 4 Mar 2020 2:42

Tgt Ion: 85 Resp: 170813

Ion Ratio Lower Upper

85 100

135 62.3 49.4 74.2



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 135.00 (134.70 to 135.70): V

3.17

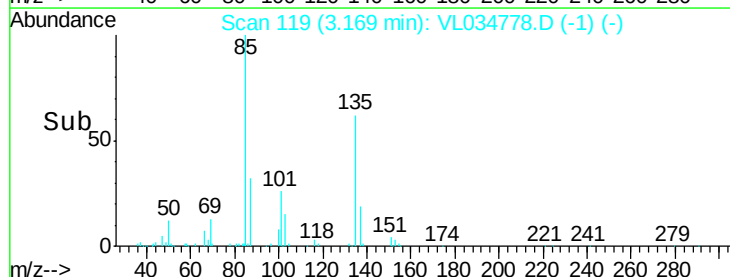
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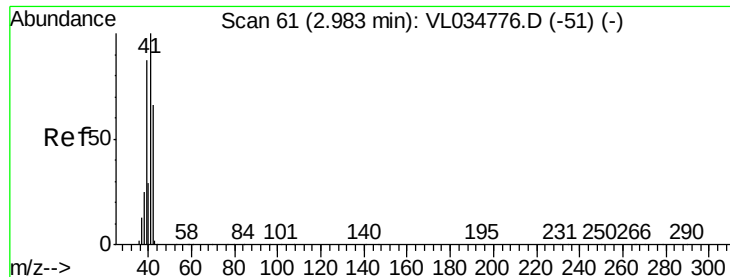
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50000

0

Time-->





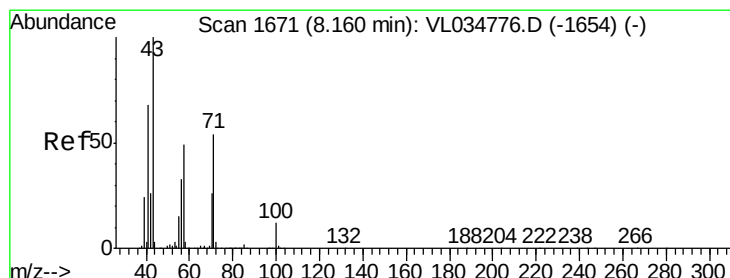
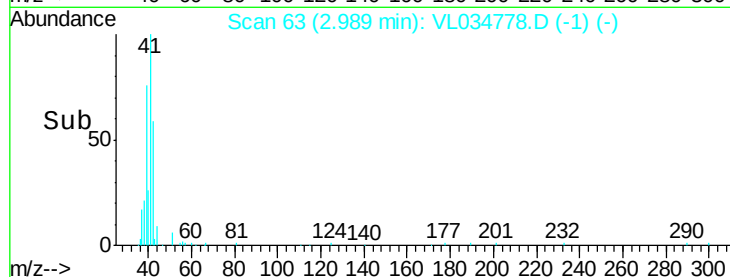
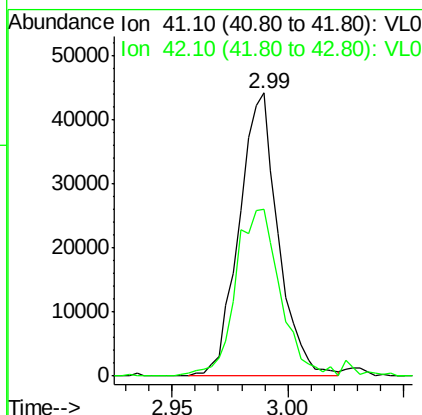
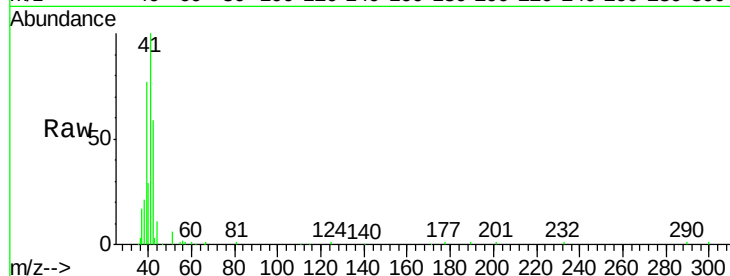
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 Propene  
 Concen: 1.027 ppbv  
 RT: 2.99 min Scan# 63  
 Delta R.T. 0.01 min  
 Lab File: VL034778.D  
 Acq: 4 Mar 2020 2:42

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC001

Tot Ion: 41 Resp: 51772  
 Ion Ratio Lower Upper  
 41 100  
 42 69.5 55.6 83.4

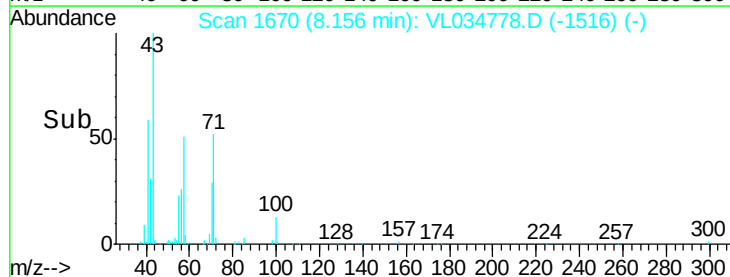
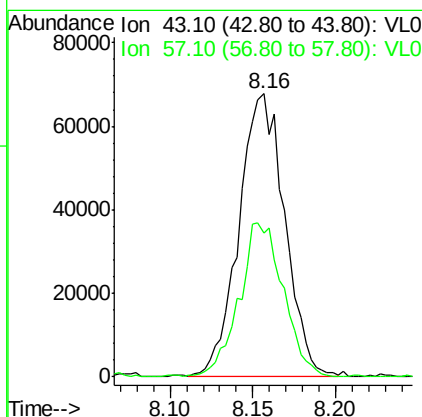
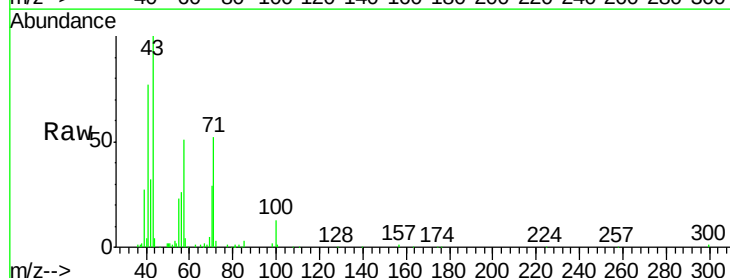
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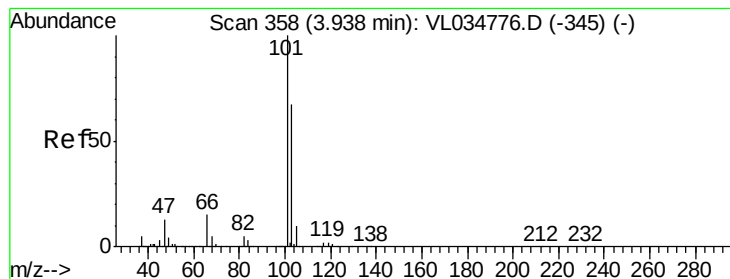


#10  
 Heptane  
 Concen: 1.006 ppbv  
 RT: 8.16 min Scan# 1670  
 Delta R.T. -0.00 min  
 Lab File: VL034778.D  
 Acq: 4 Mar 2020 2:42

Tgt Ion: 43 Resp: 130774  
 Ion Ratio Lower Upper  
 43 100  
 57 52.7 40.5 60.7







#11

Trichlorofluoromethane

Concen: 1.162 ppbv

RT: 3.94 min Scan# 359

Delta R.T. 0.00 min

Lab File: VL034778.D

Acq: 4 Mar 2020 2:42

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC001

Tot Ion:101 Resp: 179785

Ion Ratio Lower Upper

101 100

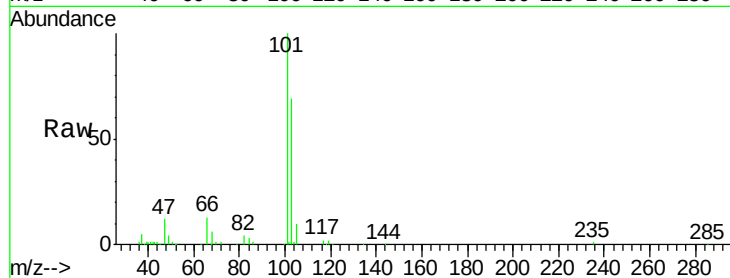
103 68.8 53.6 80.4

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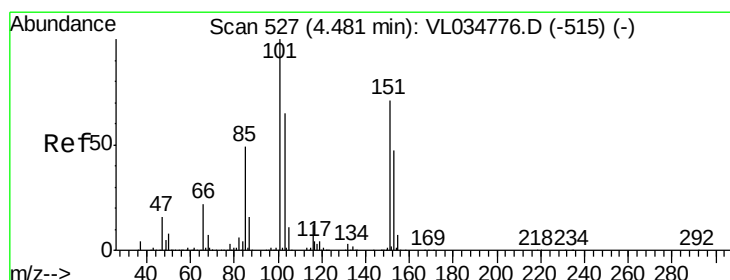
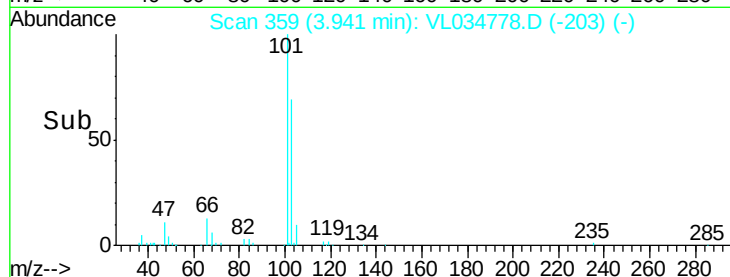
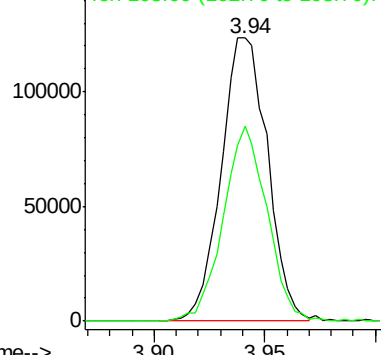
apatel

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Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#12

1,1,2-Trichlorotrifluoroethane

Concen: 1.114 ppbv

RT: 4.48 min Scan# 528

Delta R.T. 0.00 min

Lab File: VL034778.D

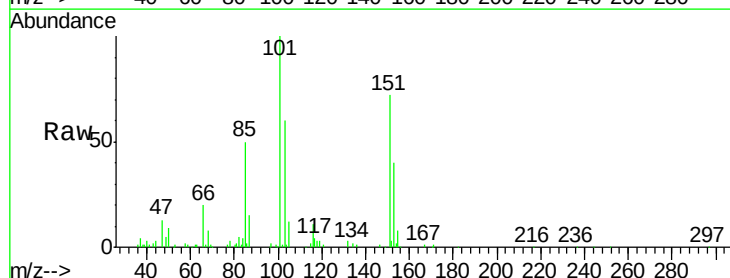
Acq: 4 Mar 2020 2:42

Tgt Ion:101 Resp: 121058

Ion Ratio Lower Upper

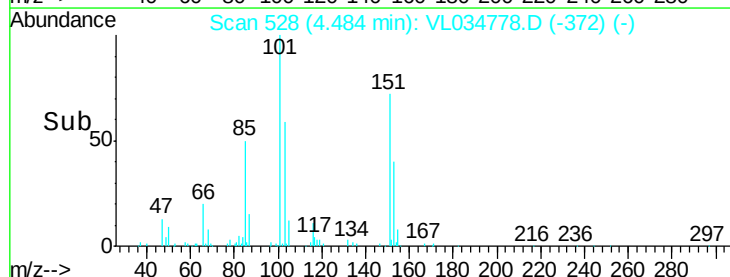
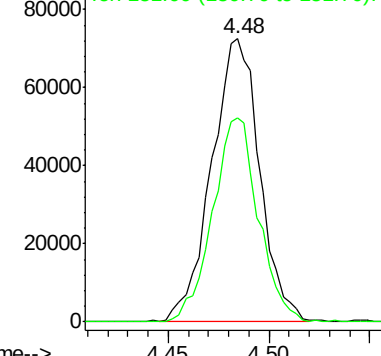
101 100

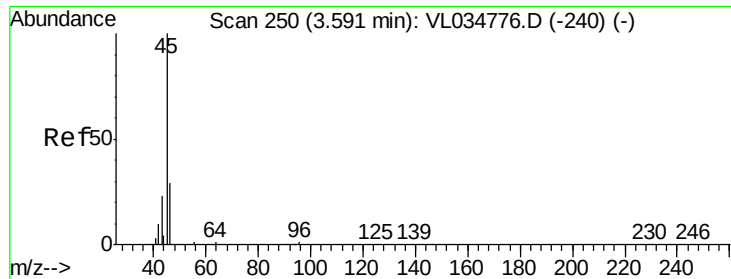
151 68.6 56.6 85.0



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V





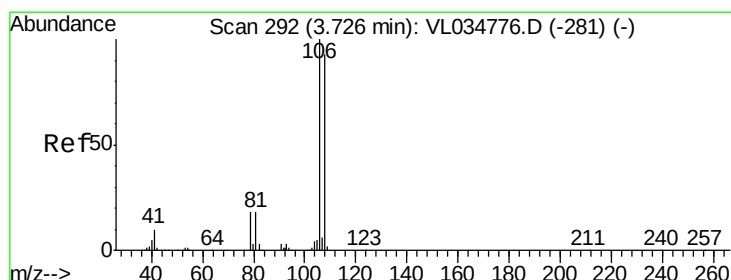
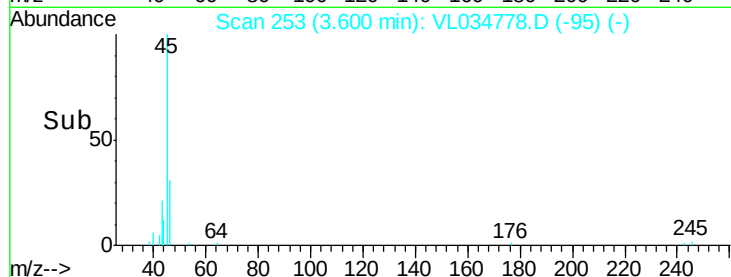
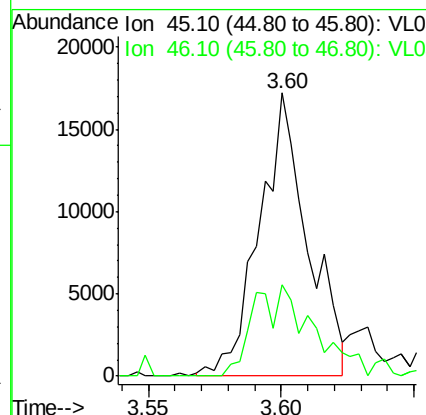
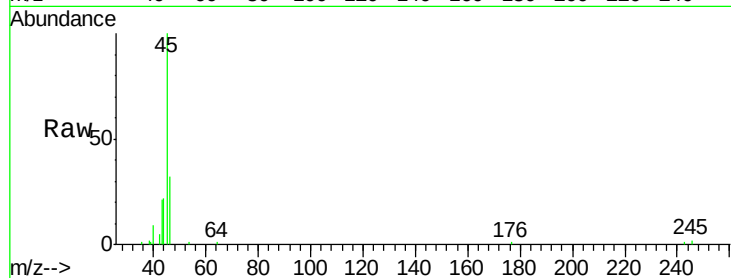
#13  
Ethanol  
Concen: 1.370 ppbv m  
RT: 3.60 min Scan# 253  
Delta R.T. 0.01 min  
Lab File: VL034778.D  
Acq: 4 Mar 2020 2:42

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC001

| Tot Ion   | 45   | Resp  | 21753 |
|-----------|------|-------|-------|
| Ion Ratio | 100  | Lower | Upper |
| 46        | 41.8 | 14.7  | 58.9  |

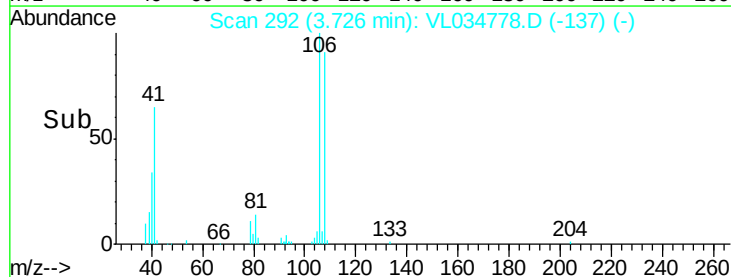
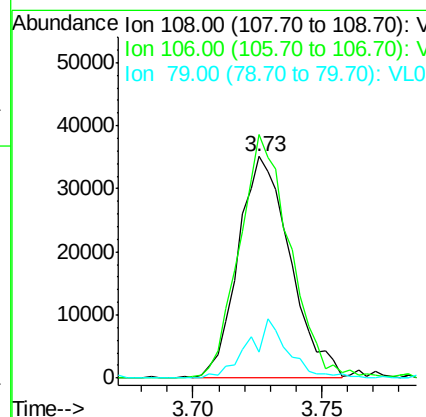
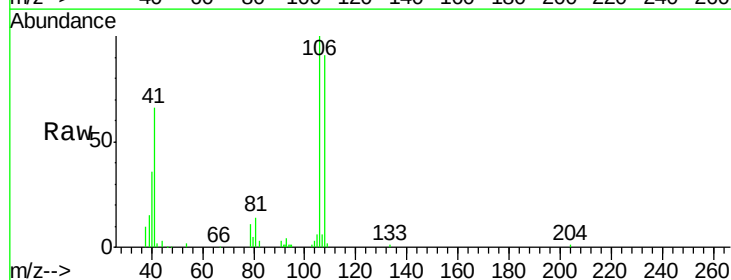
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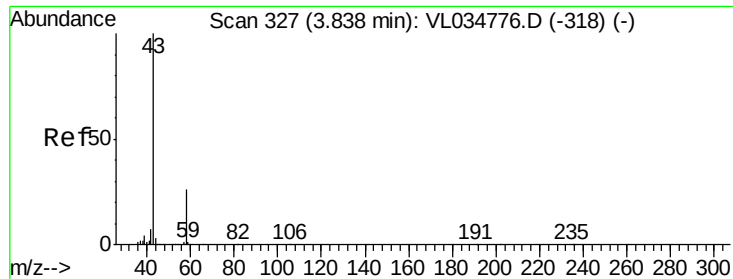
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#14  
Bromoethene  
Concen: 1.087 ppbv  
RT: 3.73 min Scan# 292  
Delta R.T. -0.00 min  
Lab File: VL034778.D  
Acq: 4 Mar 2020 2:42

| Tgt Ion   | 108   | Resp  | 49541 |
|-----------|-------|-------|-------|
| Ion Ratio | 100   | Lower | Upper |
| 106       | 107.8 | 83.5  | 125.3 |
| 79        | 21.1  | 15.6  | 23.4  |





#15

Acetone

Concen: 1.137 ppbv

RT: 3.85 min Scan# 330

Delta R.T. 0.01 min

Lab File: VL034778.D

Acq: 4 Mar 2020 2:42

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC001

Tot Ion: 43 Resp: 145189

Ion Ratio Lower Upper

43 100

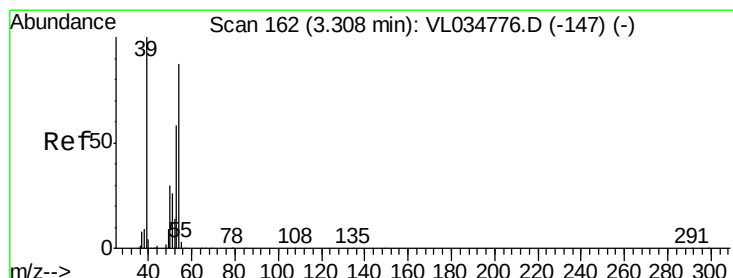
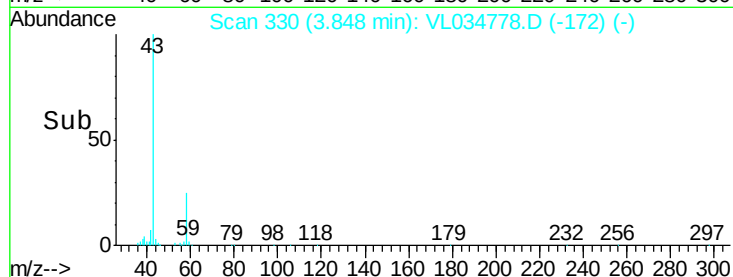
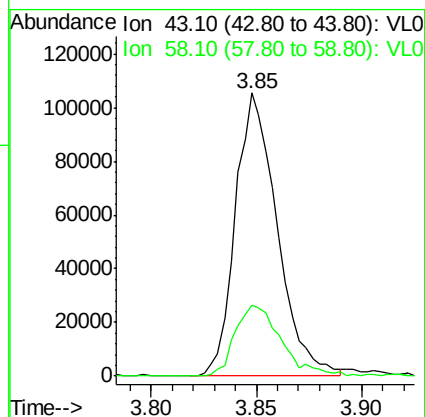
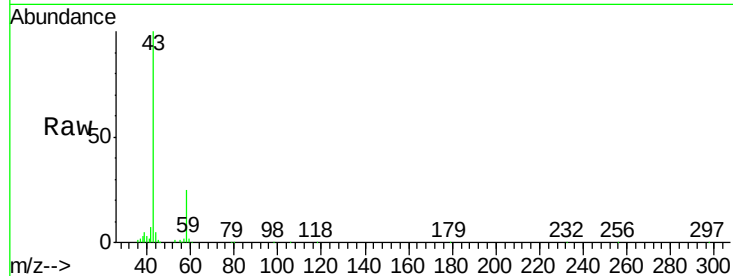
58 28.3 21.0 31.6

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#16

1,3-Butadiene

Concen: 1.057 ppbv

RT: 3.31 min Scan# 162

Delta R.T. -0.00 min

Lab File: VL034778.D

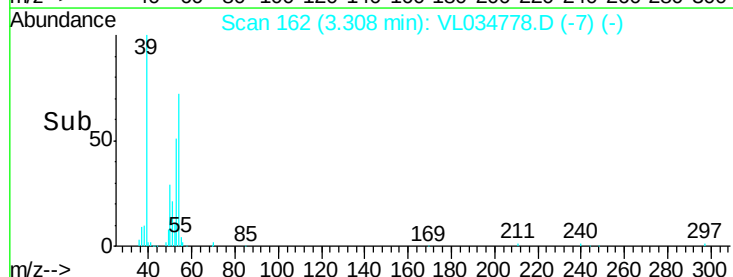
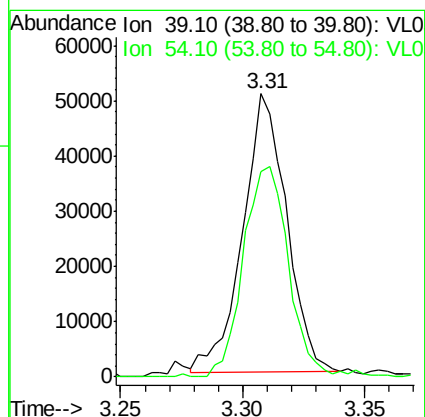
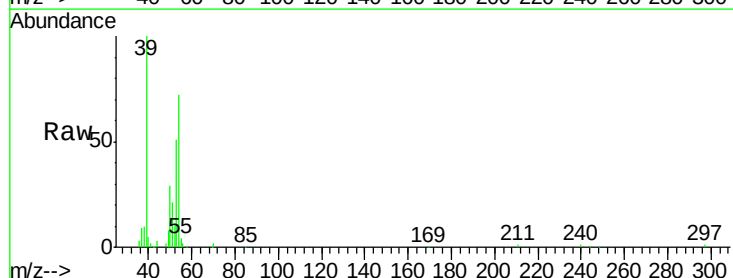
Acq: 4 Mar 2020 2:42

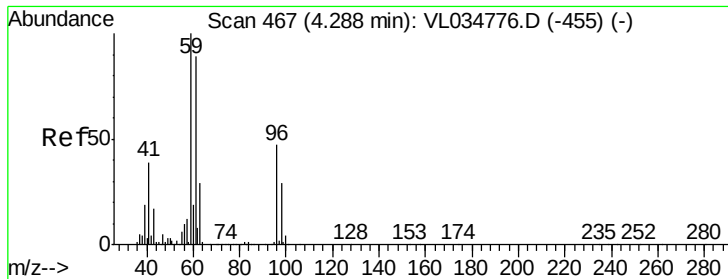
Tgt Ion: 39 Resp: 62667

Ion Ratio Lower Upper

39 100

54 78.9 64.2 96.2





#17

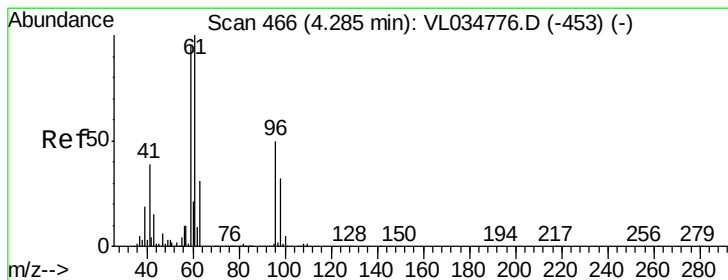
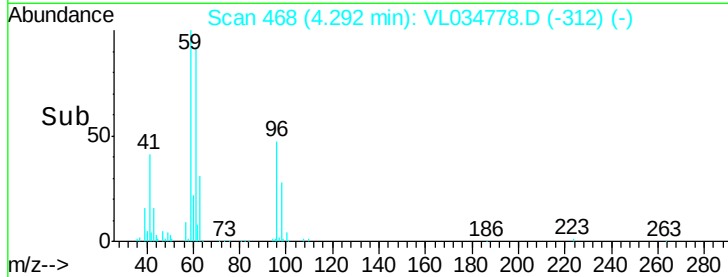
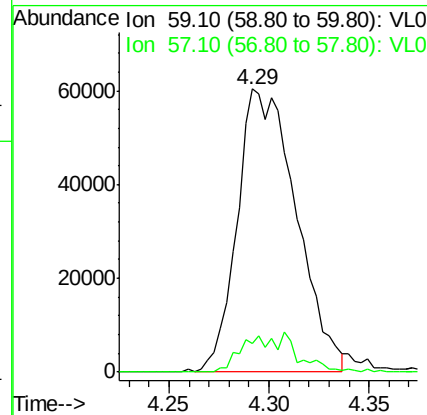
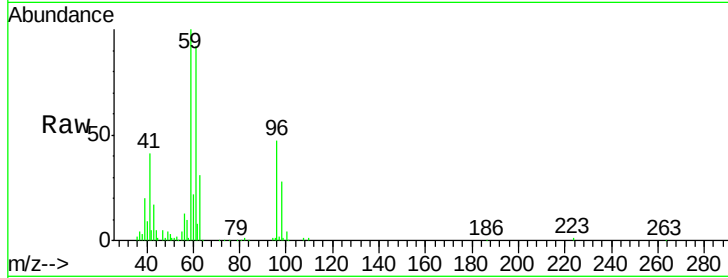
tert-Butyl alcohol  
Concen: 1.269 ppbv m  
RT: 4.29 min Scan# 468  
Delta R.T. 0.00 min  
Lab File: VL034778.D  
Acq: 4 Mar 2020 2:42

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC001

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 59      | 100   |       |       |
| 57      | 0.0   | 8.6   | 13.0# |

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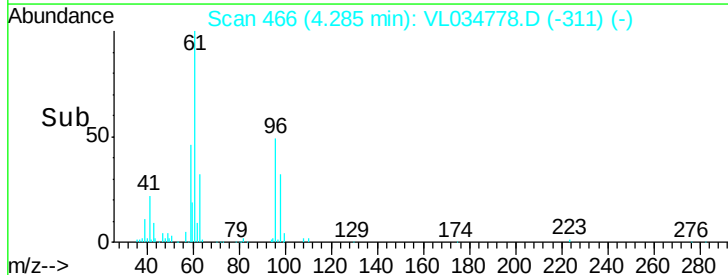
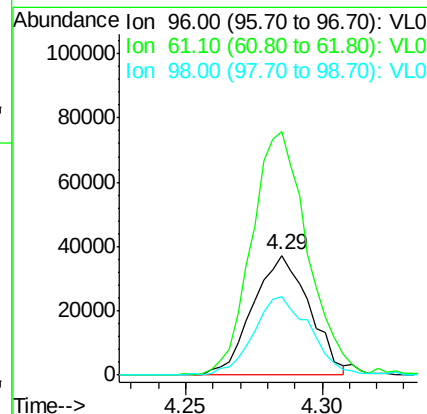
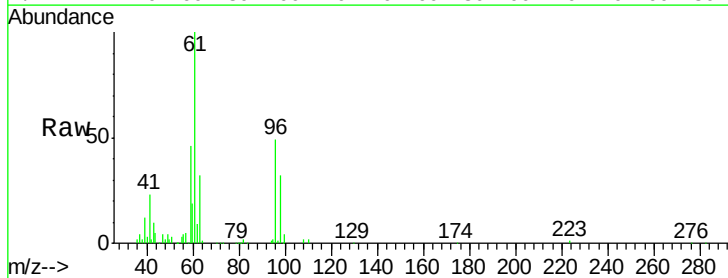
apatel  
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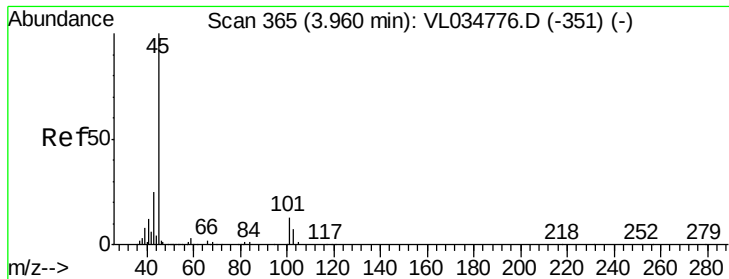


#18

1,1-Dichloroethene  
Concen: 1.097 ppbv  
RT: 4.29 min Scan# 466  
Delta R.T. -0.00 min  
Lab File: VL034778.D  
Acq: 4 Mar 2020 2:42

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 96      | 100   |       |       |
| 61      | 203.4 | 159.5 | 239.3 |
| 98      | 64.8  | 51.1  | 76.7  |





#19

Isopropyl Alcohol

Concen: 1.210 ppbv m

RT: 3.96 min Scan# 366

Delta R.T. 0.00 min

Lab File: VL034778.D

Acq: 4 Mar 2020 2:42

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC001

Tot Ion: 45 Resp: 92174

Ion Ratio Lower Upper

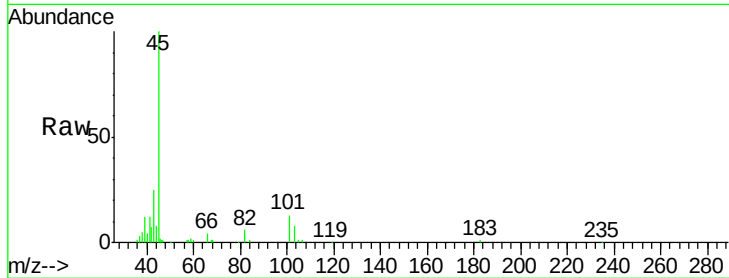
45 100

58 4.0 1.8 2.8#

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Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

3.96

50000

40000

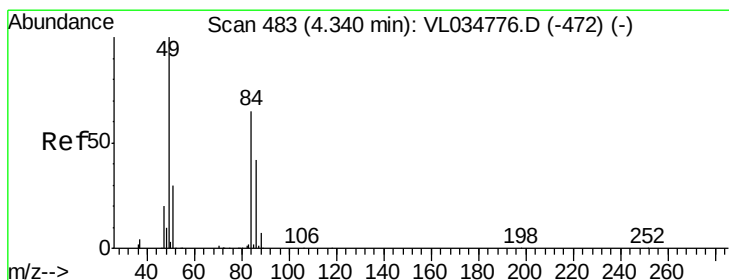
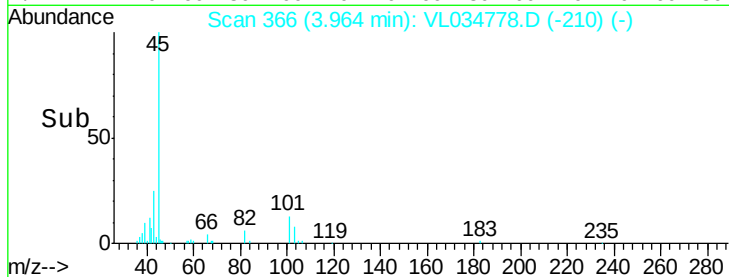
30000

20000

10000

0

Time-->



#20

Methylene Chloride

Concen: 1.134 ppbv m

RT: 4.34 min Scan# 483

Delta R.T. -0.00 min

Lab File: VL034778.D

Acq: 4 Mar 2020 2:42

Tgt Ion: 84 Resp: 53650

Ion Ratio Lower Upper

84 100

49 153.3 123.2 184.8

51 38.5 37.4 56.2

86 52.2 51.6 77.4

Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0

80000

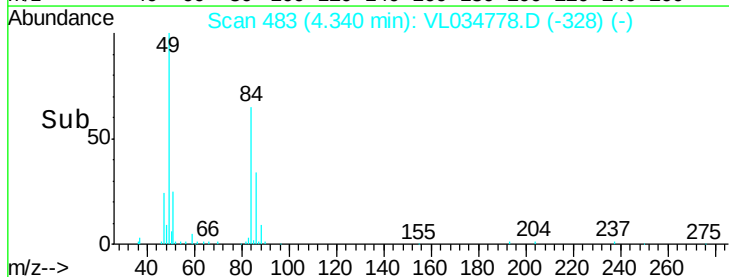
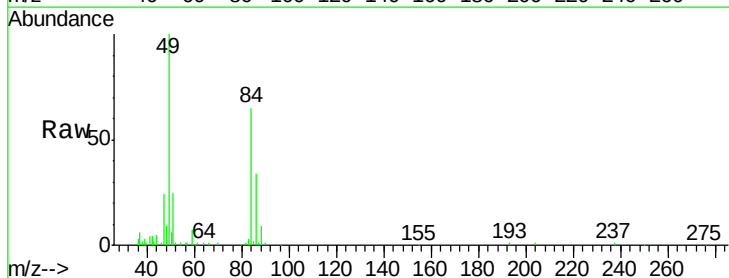
60000

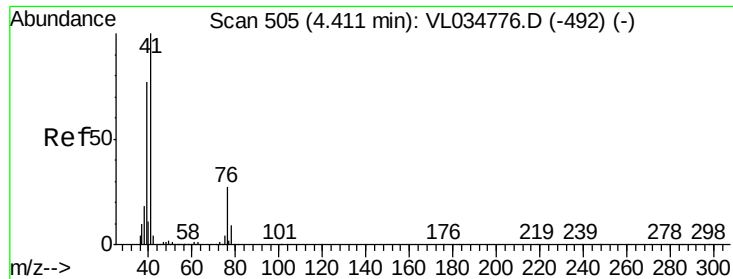
40000

20000

0

Time-->





#21

Allvl Chloride

Concen: 1.062 ppbv

RT: 4.41 min Scan# 504

Delta R.T. -0.00 min

Lab File: VL034778.D

Acq: 4 Mar 2020 2:42

Instrument :

MSVOA\_L

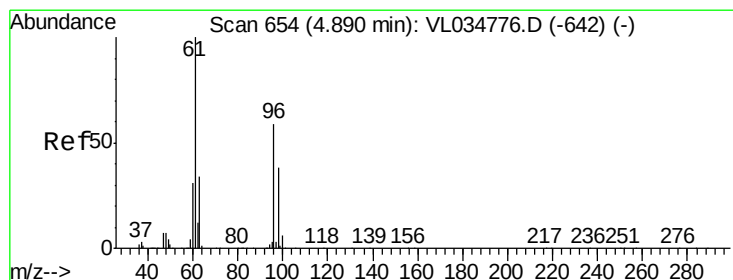
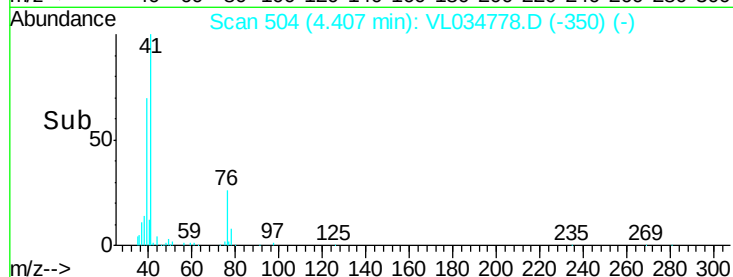
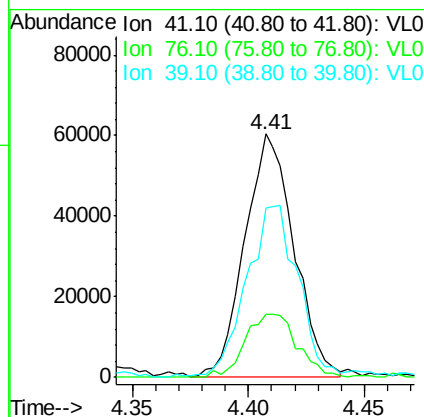
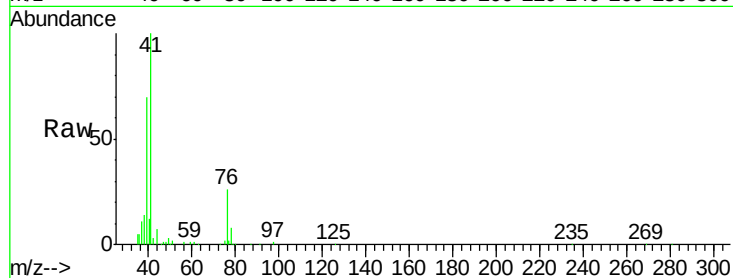
ClientSampleId :

VSTDIC001

|           |      |       |       |
|-----------|------|-------|-------|
| Tot Ion:  | 41   | Resp: | 88843 |
| Ion Ratio |      | Lower | Upper |
| 41        | 100  |       |       |
| 76        | 27.6 | 22.5  | 33.7  |
| 39        | 78.6 | 65.0  | 97.6  |

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#22

trans-1,2-Dichloroethene

Concen: 1.083 ppbv

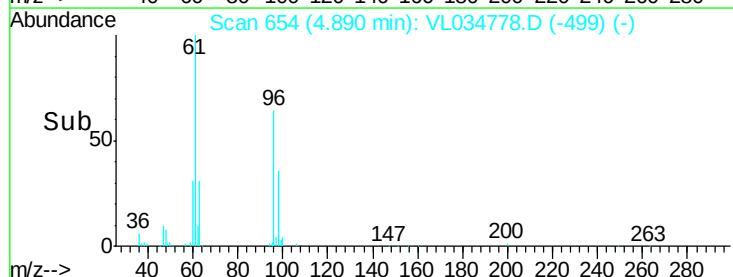
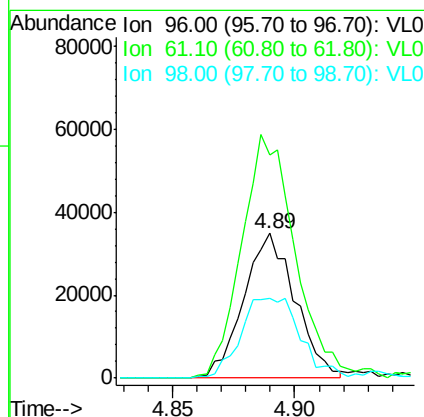
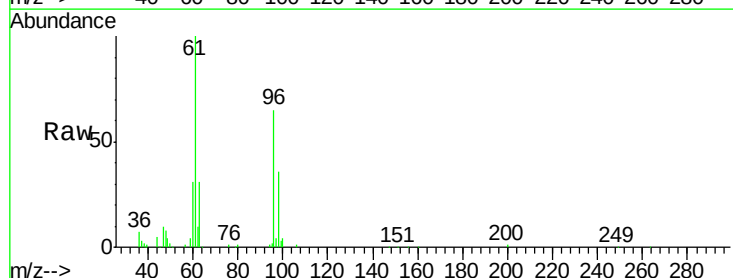
RT: 4.89 min Scan# 654

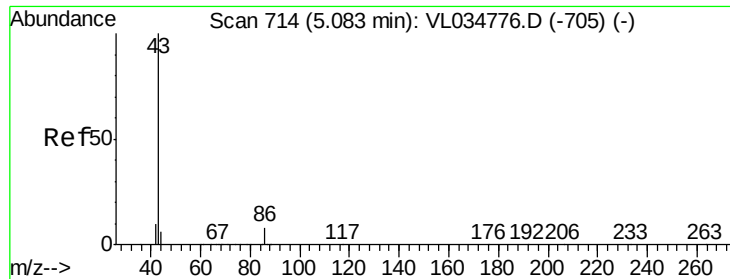
Delta R.T. -0.00 min

Lab File: VL034778.D

Acq: 4 Mar 2020 2:42

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 96    | Resp: | 51055 |
| Ion Ratio |       | Lower | Upper |
| 96        | 100   |       |       |
| 61        | 153.2 | 135.2 | 202.8 |
| 98        | 54.9  | 50.8  | 76.2  |





#23

Vinyl Acetate

Concen: 1.062 ppbv

RT: 5.08 min Scan# 714

Delta R.T. -0.00 min

Lab File: VL034778.D

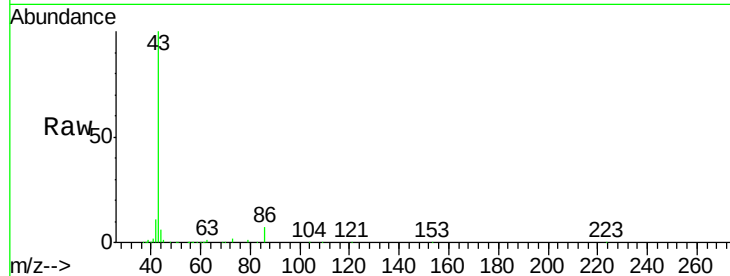
Acq: 4 Mar 2020 2:42

| Tot Ion   | 43    | Resp  | 184322 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 43        | 100   |       |        |
| 86        | 7.2   | 5.9   | 8.9    |
| 42        | 10.4  | 8.2   | 12.2   |
| 44        | 4.7   | 4.5   | 6.7    |

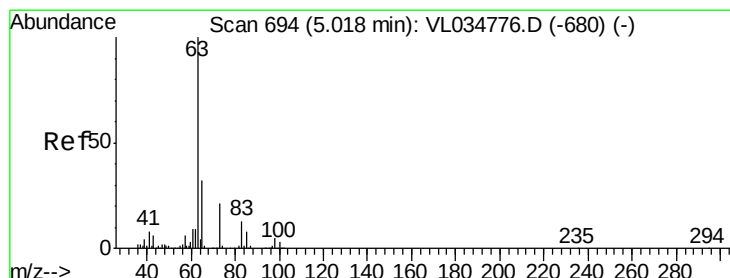
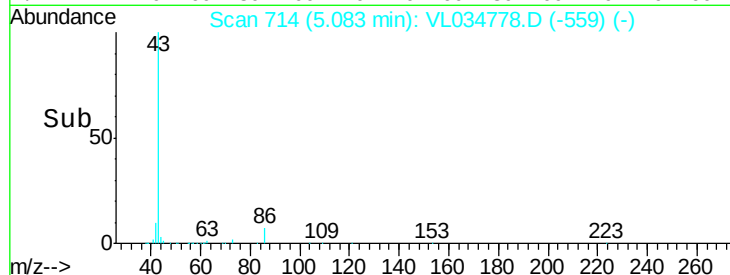
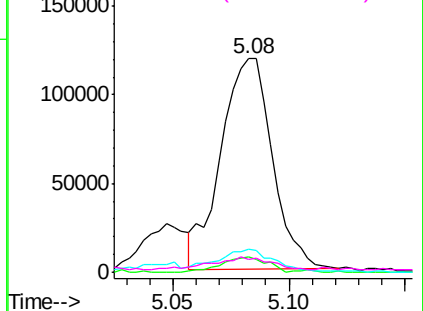
Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC001

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Abundance Ion 43.10 (42.80 to 43.80): VL0  
Ion 86.10 (85.80 to 86.80): VL0  
Ion 42.10 (41.80 to 42.80): VL0  
Ion 44.10 (43.80 to 44.80): VL0



#24

1,1-Dichloroethane

Concen: 1.034 ppbv

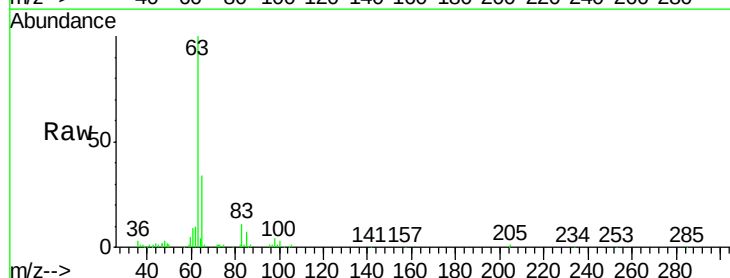
RT: 5.01 min Scan# 693

Delta R.T. -0.00 min

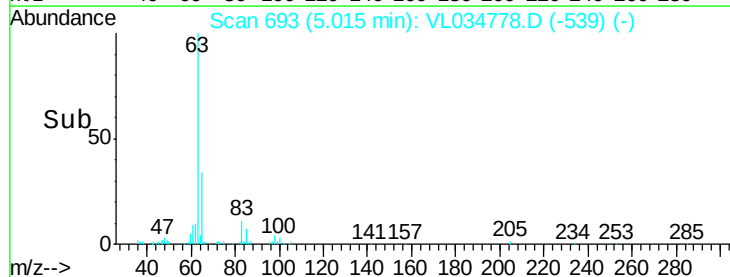
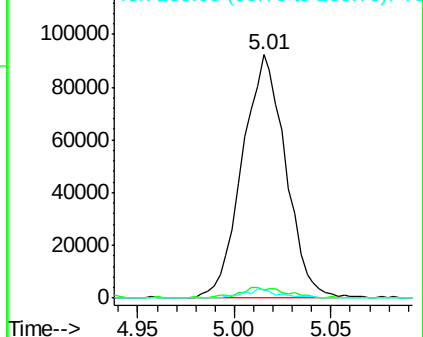
Lab File: VL034778.D

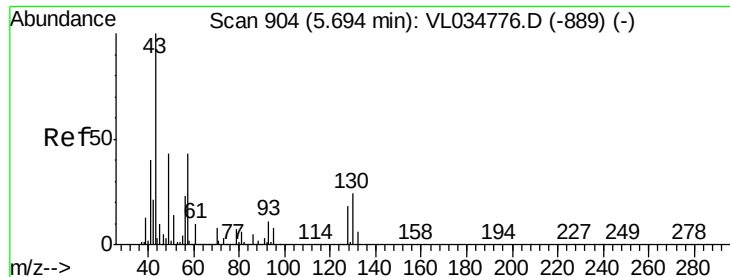
Acq: 4 Mar 2020 2:42

| Tgt Ion   | 63    | Resp  | 142943 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 63        | 100   |       |        |
| 98        | 3.4   | 2.3   | 6.8    |
| 100       | 3.2   | 1.5   | 4.4    |



Abundance Ion 63.10 (62.80 to 63.80): VL0  
Ion 98.00 (97.70 to 98.70): VL0  
Ion 100.00 (99.70 to 100.70): VL0





#25

Ethyl Acetate

Concen: 1.090 ppbv

RT: 5.69 min Scan# 904

Delta R.T. -0.00 min

Lab File: VL034778.D

Acq: 4 Mar 2020 2:42

Instrument :

MSVOA\_L

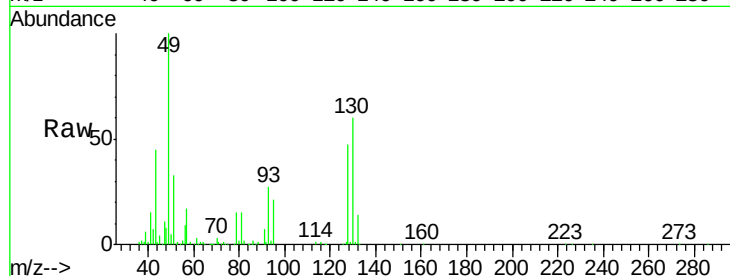
ClientSampleId :

VSTDIC001

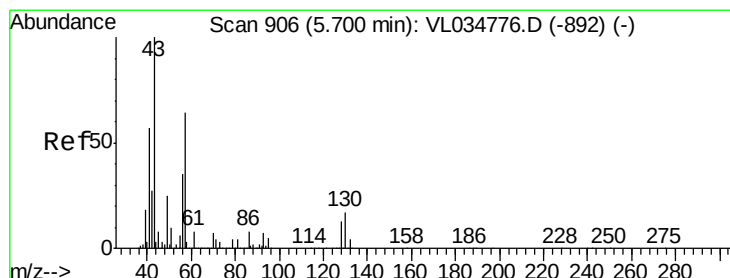
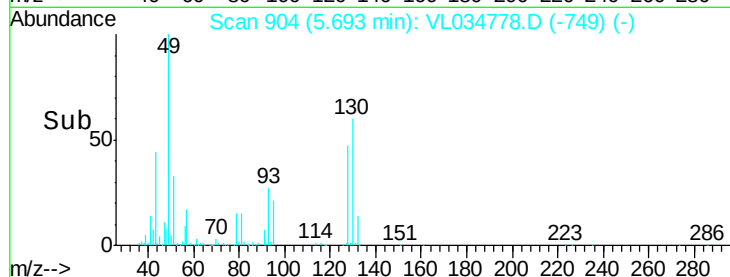
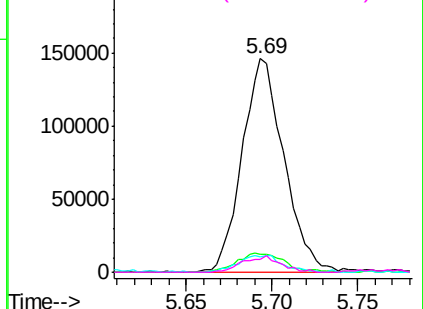
|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 43    | Resp: | 246634 |
| Ion      | Ratio | Lower | Upper  |
| 43       | 100   |       |        |
| 45       | 10.7  | 8.2   | 12.4   |
| 61       | 8.5   | 7.5   | 11.3   |
| 70       | 7.0   | 6.0   | 9.0    |

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Abundance Ion 43.10 (42.80 to 43.80): VL0  
Ion 45.10 (44.80 to 45.80): VL0  
Ion 61.10 (60.80 to 61.80): VL0  
Ion 70.10 (69.80 to 70.80): VL0



#26

Hexane

Concen: 0.999 ppbv

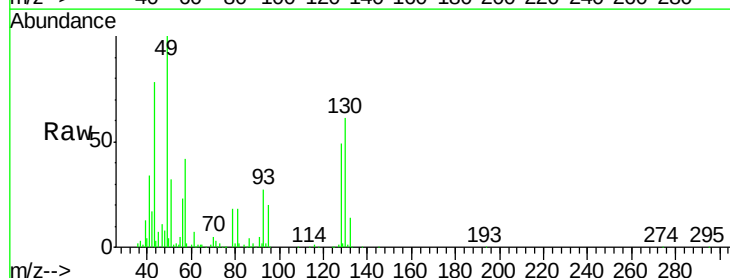
RT: 5.70 min Scan# 906

Delta R.T. -0.00 min

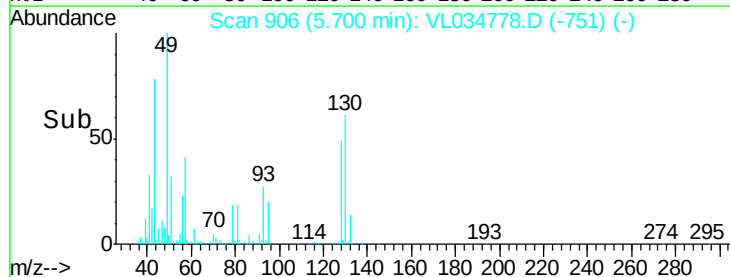
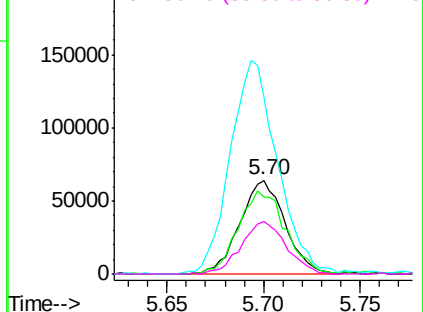
Lab File: VL034778.D

Acq: 4 Mar 2020 2:42

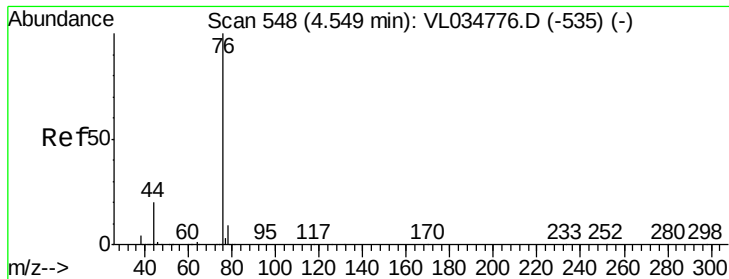
|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 57    | Resp: | 103896 |
| Ion      | Ratio | Lower | Upper  |
| 57       | 100   |       |        |
| 41       | 94.0  | 72.0  | 108.0  |
| 43       | 241.2 | 179.1 | 268.7  |
| 56       | 56.4  | 42.6  | 63.8   |



Abundance Ion 57.10 (56.80 to 57.80): VL0  
Ion 41.10 (40.80 to 41.80): VL0  
Ion 43.10 (42.80 to 43.80): VL0  
Ion 56.10 (55.80 to 56.80): VL0







#27

Carbon Disulfide

Concen: 1.009 ppbv

RT: 4.55 min Scan# 549

Delta R.T. 0.00 min

Lab File: VL034778.D

Acq: 4 Mar 2020 2:42

Instrument :

MSVOA\_L

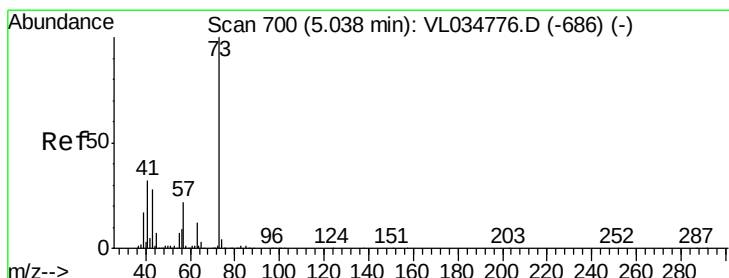
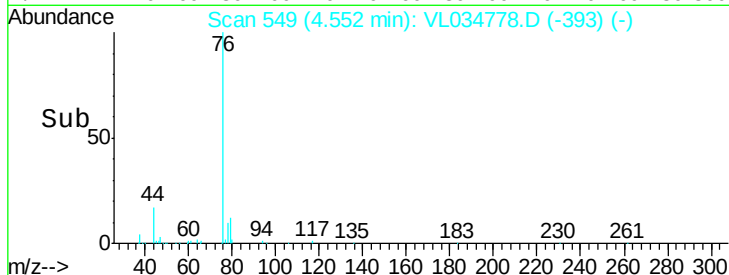
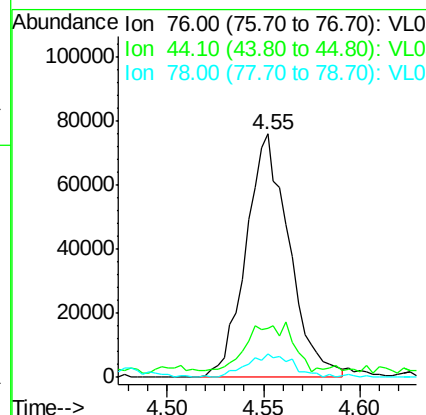
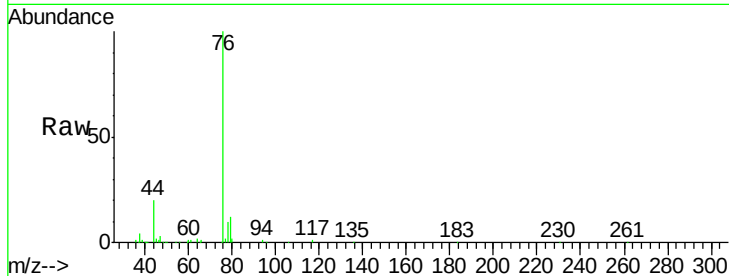
ClientSampleId :

VSTDIC001

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 76    | Resp: | 117867 |
| Ion Ratio | Lower | Upper |        |
| 76        | 100   |       |        |
| 44        | 25.9  | 16.1  | 24.1#  |
| 78        | 10.6  | 7.5   | 11.3   |

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#28

Methyl tert-Butyl Ether

Concen: 1.093 ppbv

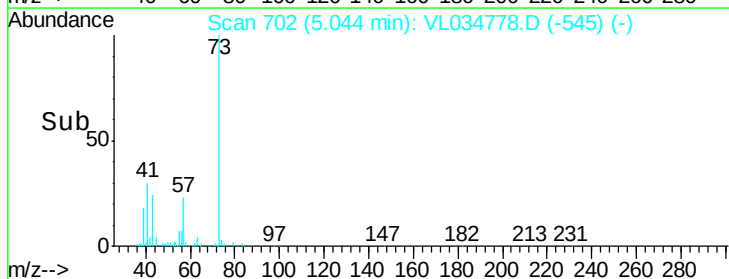
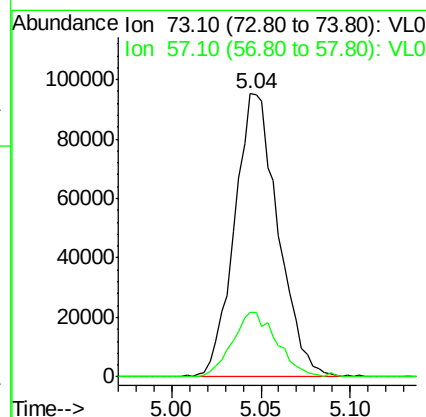
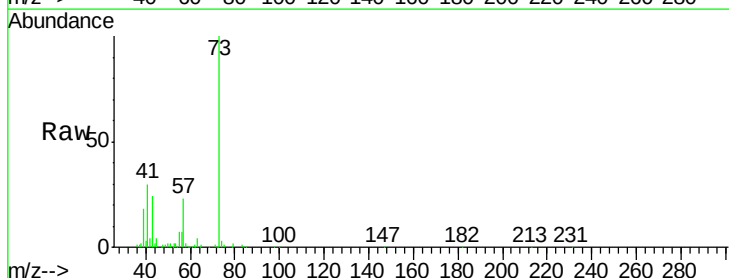
RT: 5.04 min Scan# 702

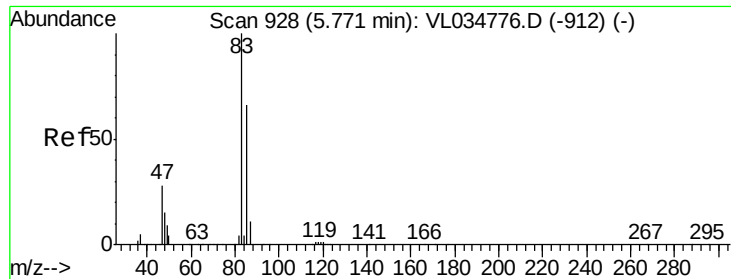
Delta R.T. 0.01 min

Lab File: VL034778.D

Acq: 4 Mar 2020 2:42

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 73    | Resp: | 162010 |
| Ion Ratio | Lower | Upper |        |
| 73        | 100   |       |        |
| 57        | 23.6  | 18.5  | 27.7   |





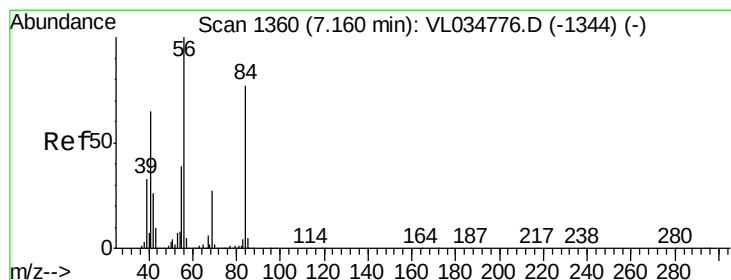
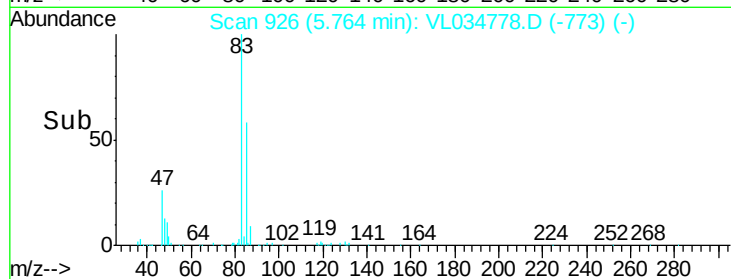
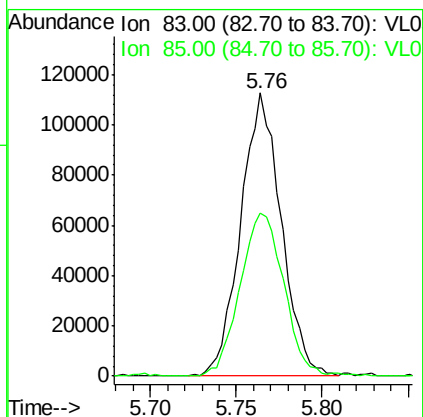
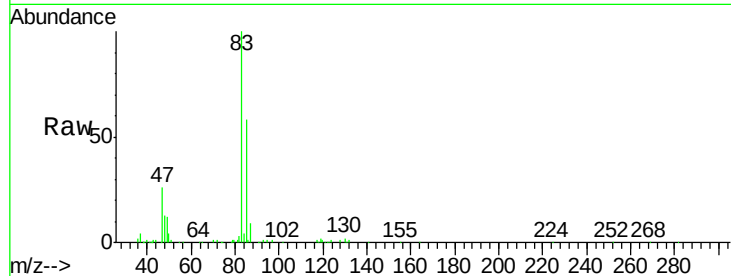
#29  
Chloroform  
Concen: 1.108 ppbv  
RT: 5.76 min Scan# 926  
Delta R.T. -0.01 min  
Lab File: VL034778.D  
Acq: 4 Mar 2020 2:42

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC001

| Tot Ion   | 83   | Resp  | 183687 |
|-----------|------|-------|--------|
| Ion Ratio | 100  | Lower | Upper  |
| 83        | 100  |       |        |
| 85        | 57.5 | 53.0  | 79.4   |

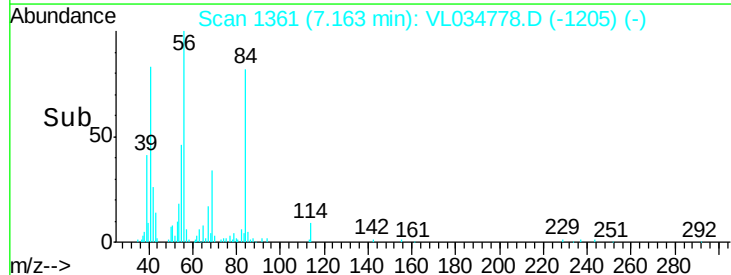
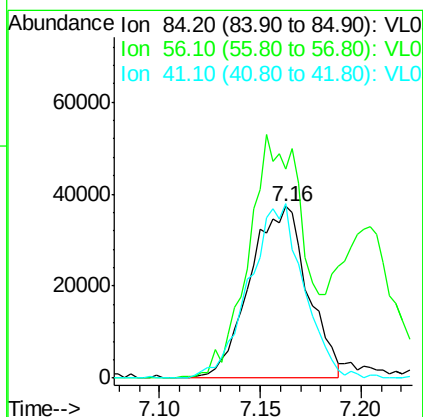
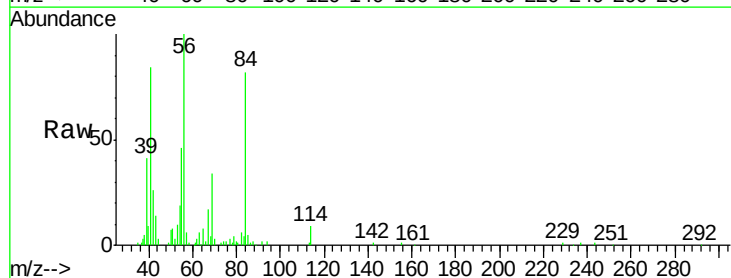
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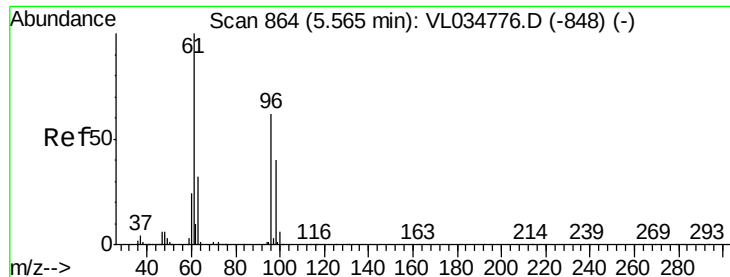
apatel  
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#30  
Cyclohexane  
Concen: 0.922 ppbv  
RT: 7.16 min Scan# 1361  
Delta R.T. 0.00 min  
Lab File: VL034778.D  
Acq: 4 Mar 2020 2:42

| Tgt Ion   | 84    | Resp  | 74355 |
|-----------|-------|-------|-------|
| Ion Ratio | 100   | Lower | Upper |
| 84        | 100   |       |       |
| 56        | 142.6 | 113.2 | 169.8 |
| 41        | 96.6  | 70.2  | 105.4 |





#31

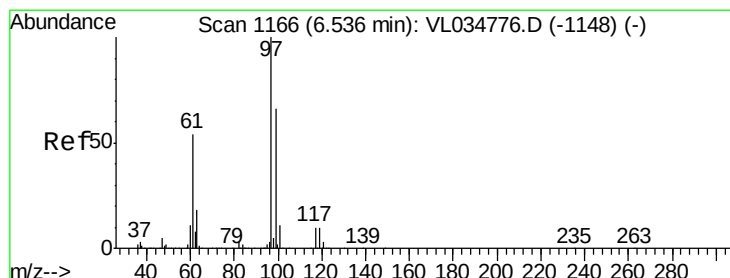
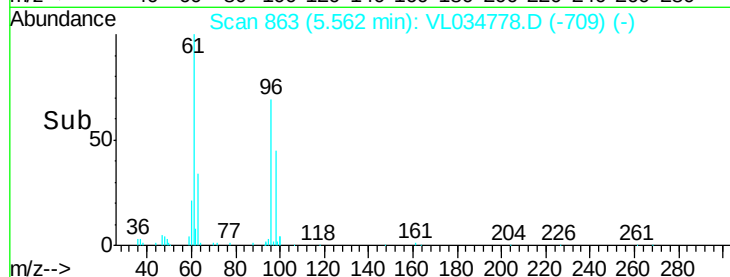
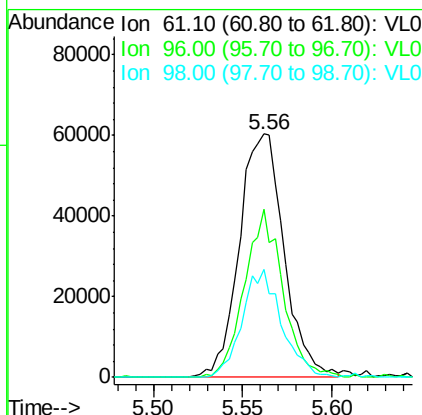
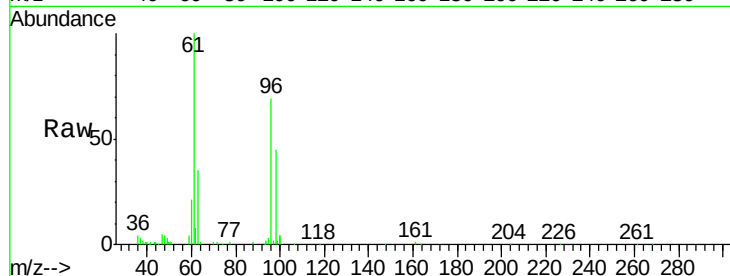
cis-1,2-Dichloroethene  
 Concen: 1.031 ppbv  
 RT: 5.56 min Scan# 863  
 Delta R.T. -0.00 min  
 Lab File: VL034778.D  
 Acq: 4 Mar 2020 2:42

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC001

| Tot Ion | Ratio | Resp | Lower | Upper |
|---------|-------|------|-------|-------|
| 61      | 100   |      |       |       |
| 96      | 68.5  | 49.7 | 74.5  |       |
| 98      | 44.5  | 31.9 | 47.9  |       |

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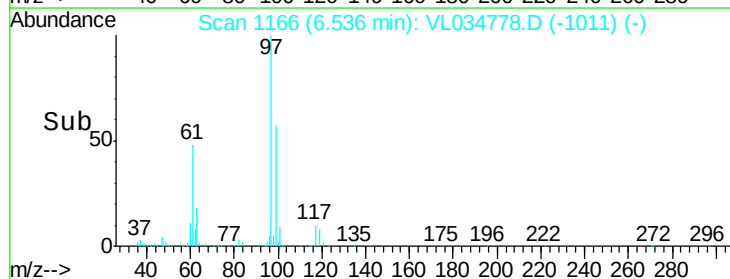
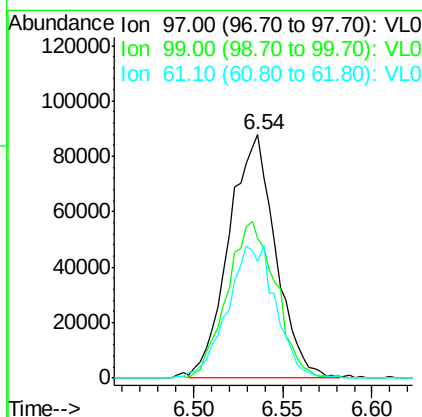
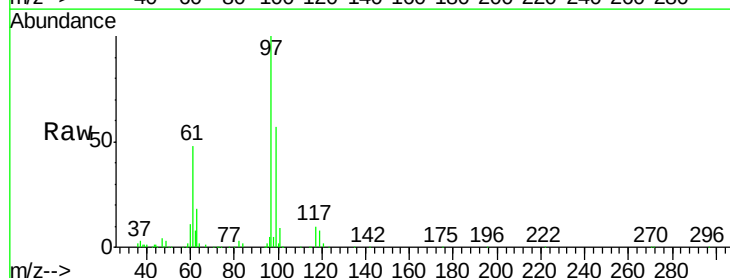
apatel  
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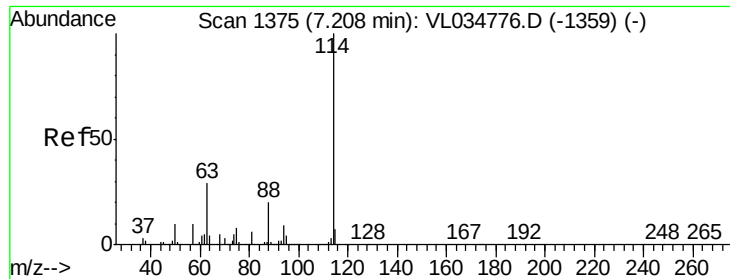


#32

1,1,1-Trichloroethane  
 Concen: 1.023 ppbv  
 RT: 6.54 min Scan# 1166  
 Delta R.T. -0.00 min  
 Lab File: VL034778.D  
 Acq: 4 Mar 2020 2:42

| Tgt Ion | Ratio | Resp | Lower | Upper |
|---------|-------|------|-------|-------|
| 97      | 100   |      |       |       |
| 99      | 67.8  | 51.7 | 77.5  |       |
| 61      | 57.1  | 43.4 | 65.0  |       |





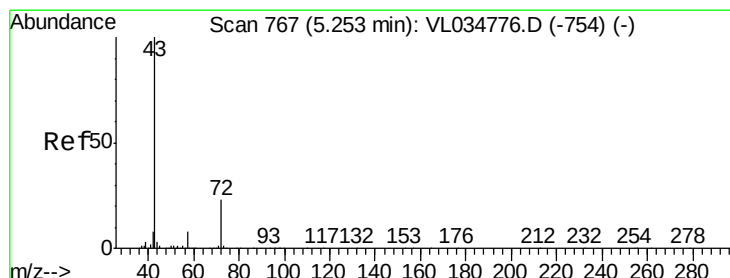
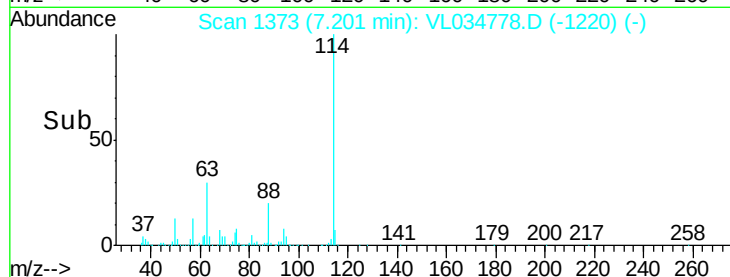
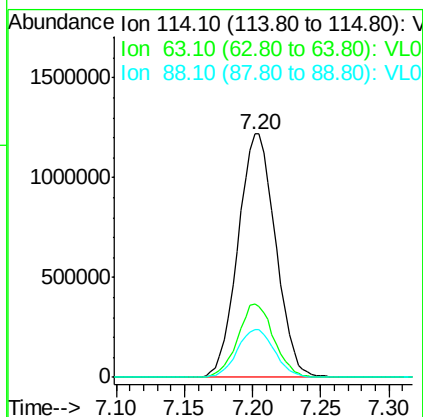
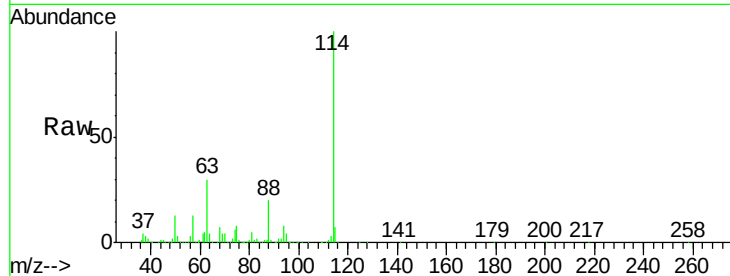
#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.20 min Scan# 1373  
 Delta R.T. -0.01 min  
 Lab File: VL034778.D  
 Acq: 4 Mar 2020 2:42

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC001

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 29.1  | 23.6  | 35.4  |
| 88      | 19.6  | 15.8  | 23.8  |

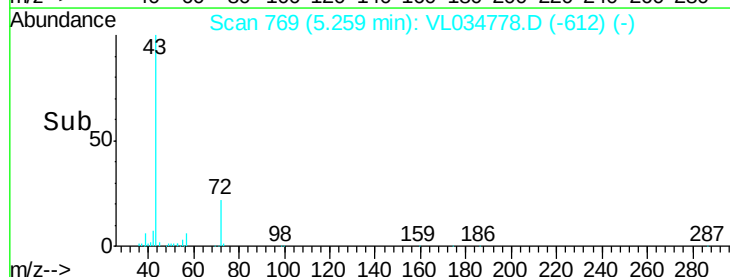
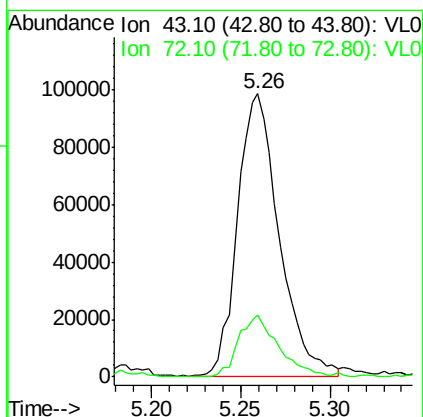
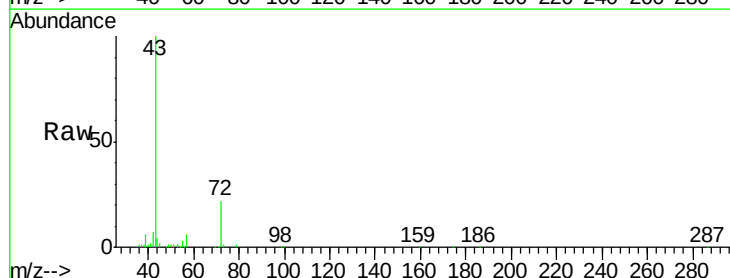
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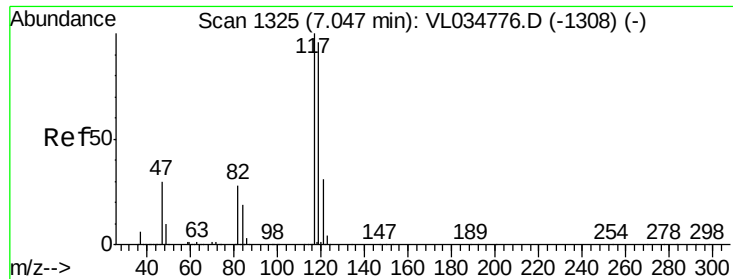
apatel  
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#34  
 2-Butanone  
 Concen: 1.096 ppbv  
 RT: 5.26 min Scan# 769  
 Delta R.T. 0.01 min  
 Lab File: VL034778.D  
 Acq: 4 Mar 2020 2:42

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 72      | 21.3  | 17.5  | 26.3  |





#35

Carbon Tetrachloride

Concen: 1.066 ppbv

RT: 7.04 min Scan# 1323

Delta R.T. -0.01 min

Lab File: VL034778.D

Acq: 4 Mar 2020 2:42

Instrument :

MSVOA\_L

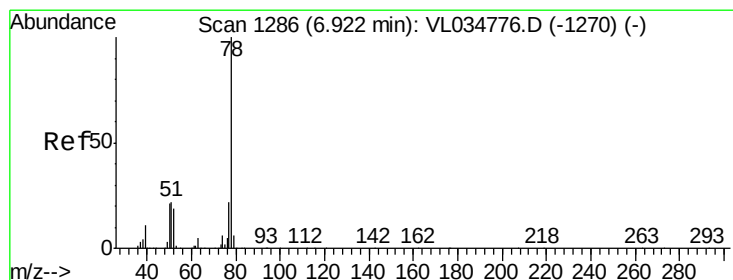
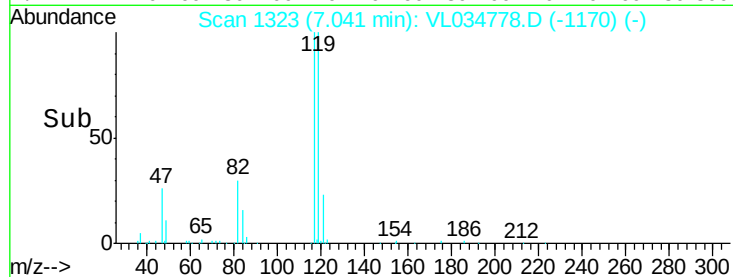
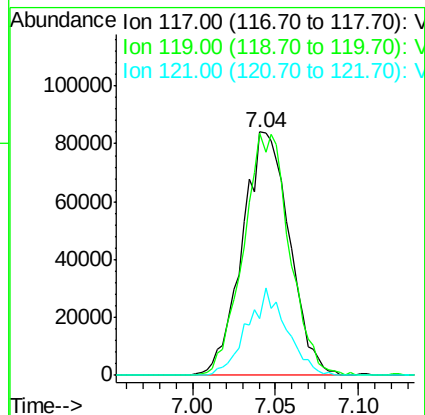
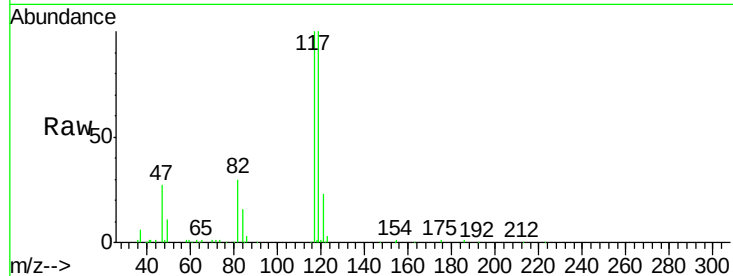
ClientSampleId :

VSTDIC001

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 117   | Resp: | 166490 |
| Ion Ratio | Lower | Upper |        |
| 117       | 100   |       |        |
| 119       | 99.5  | 76.8  | 115.2  |
| 121       | 23.1  | 24.6  | 37.0#  |

Manual Integrations  
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apatel  
3/4/2020 4:45:00 PM



#36

Benzene

Concen: 1.011 ppbv

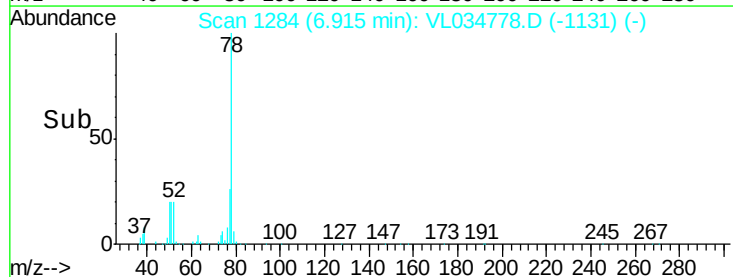
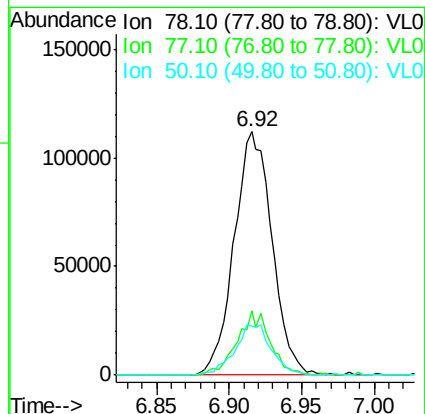
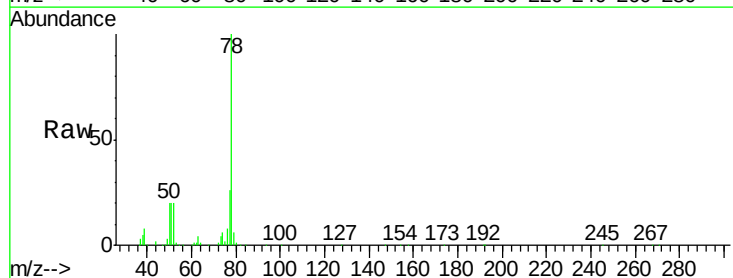
RT: 6.92 min Scan# 1284

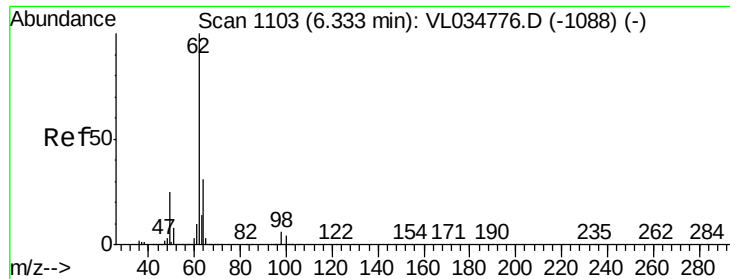
Delta R.T. -0.01 min

Lab File: VL034778.D

Acq: 4 Mar 2020 2:42

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 78    | Resp: | 203002 |
| Ion Ratio | Lower | Upper |        |
| 78        | 100   |       |        |
| 77        | 26.5  | 18.0  | 27.0   |
| 50        | 20.0  | 16.9  | 25.3   |





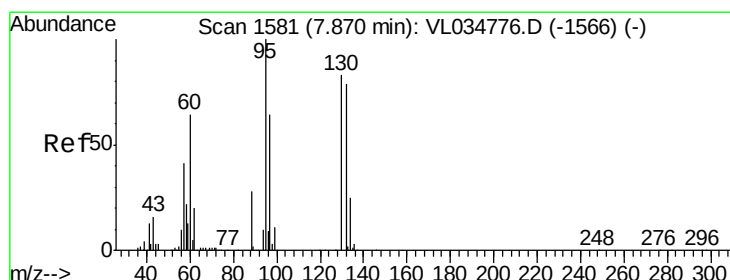
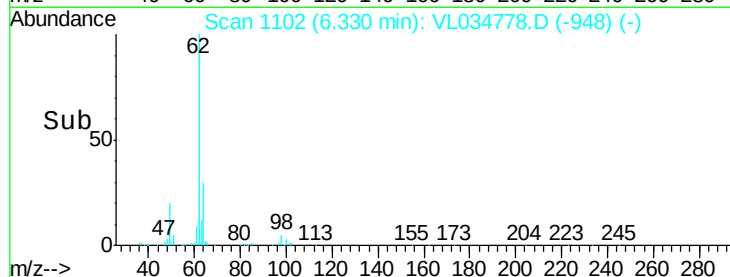
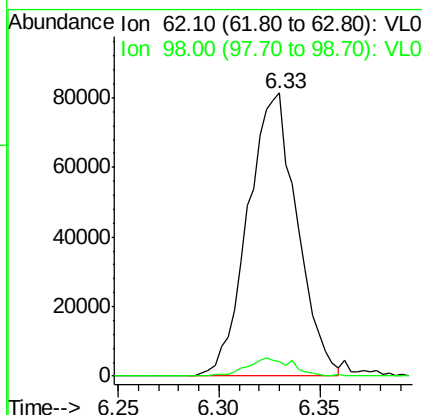
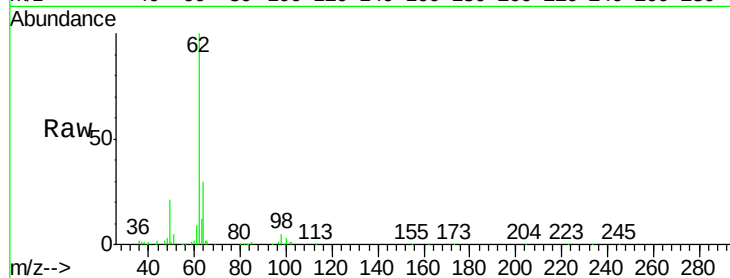
#37  
 1,2-Dichloroethane  
 Concen: 1.087 ppbv  
 RT: 6.33 min Scan# 1102  
 Delta R.T. -0.00 min  
 Lab File: VL034778.D  
 Acq: 4 Mar 2020 2:42

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC001

| Tot Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 62      | 100   | 138806 |       |       |
| 98      | 6.0   | 4.4    | 6.6   |       |

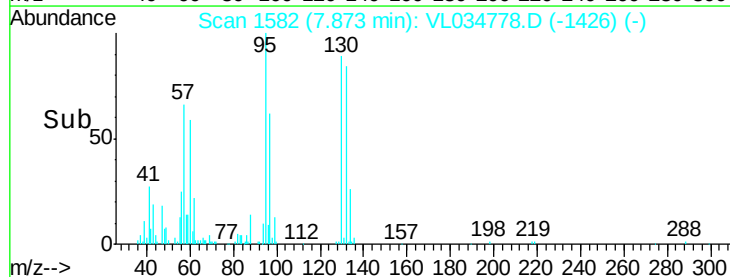
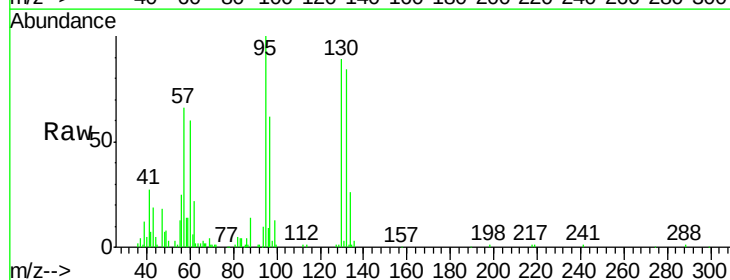
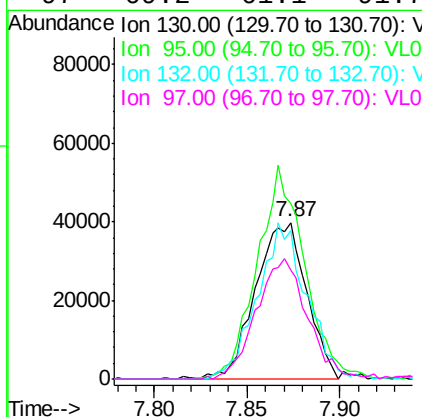
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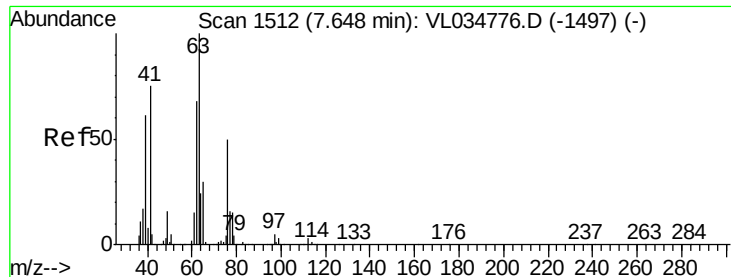
apatel  
 3/4/2020 4:45:00 PM



#38  
 Trichloroethene  
 Concen: 0.982 ppbv m  
 RT: 7.87 min Scan# 1582  
 Delta R.T. 0.00 min  
 Lab File: VL034778.D  
 Acq: 4 Mar 2020 2:42

| Tgt Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 130     | 100   | 76131 |       |       |
| 95      | 112.2 | 95.8  | 143.8 |       |
| 132     | 94.7  | 76.1  | 114.1 |       |
| 97      | 69.2  | 61.1  | 91.7  |       |





#39

1,2-Dichloropropane

Concen: 1.057 ppbv

RT: 7.65 min Scan# 1511

Delta R.T. -0.00 min

Lab File: VL034778.D

Acq: 4 Mar 2020 2:42

Instrument :

MSVOA\_L

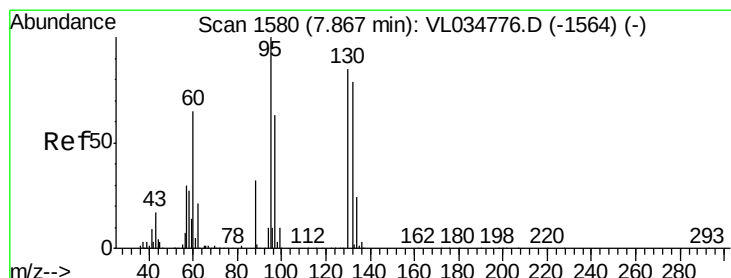
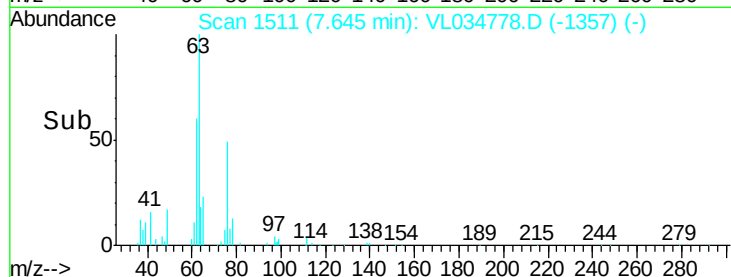
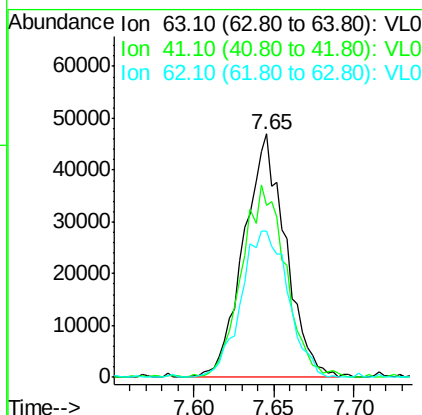
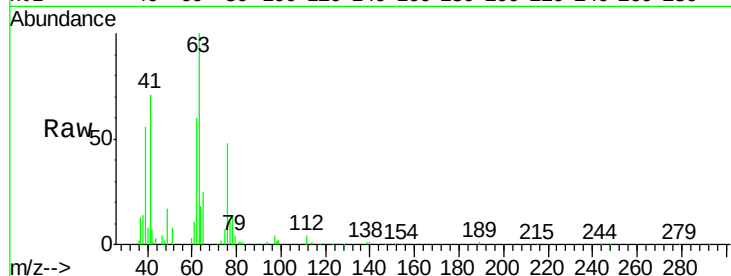
ClientSampleId :

VSTDIC001

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 63    | Resp: | 84192 |
| Ion      | Ratio | Lower | Upper |
| 63       | 100   |       |       |
| 41       | 70.9  | 60.3  | 90.5  |
| 62       | 59.9  | 54.5  | 81.7  |

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#40

1,4-Dioxane

Concen: 1.201 ppbv m

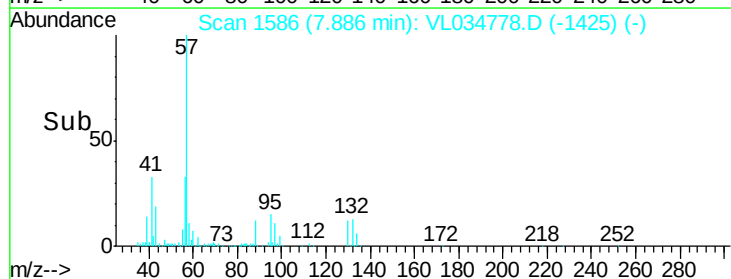
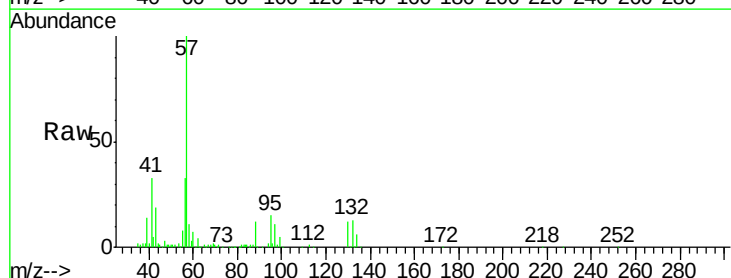
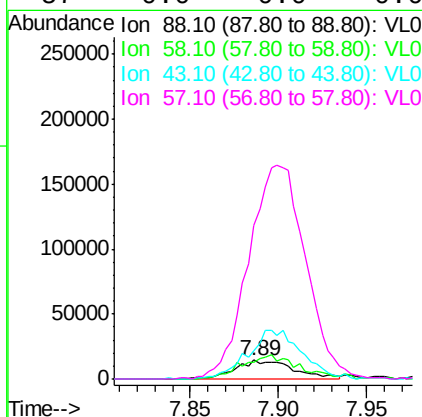
RT: 7.89 min Scan# 1586

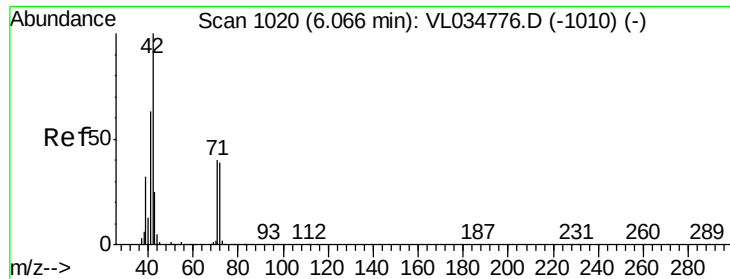
Delta R.T. 0.02 min

Lab File: VL034778.D

Acq: 4 Mar 2020 2:42

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 88    | Resp: | 32553  |
| Ion      | Ratio | Lower | Upper  |
| 88       | 100   |       |        |
| 58       | 0.0   | 110.6 | 166.0# |
| 43       | 0.0   | 0.0   | 0.0    |
| 57       | 0.0   | 0.0   | 0.0    |





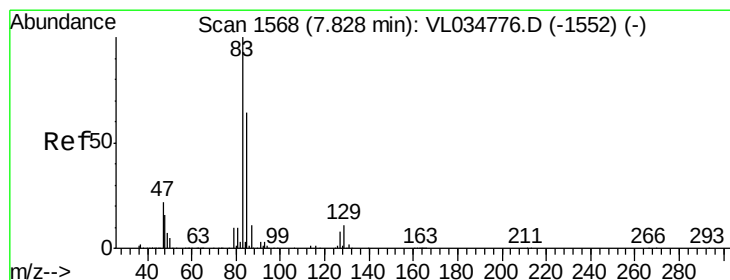
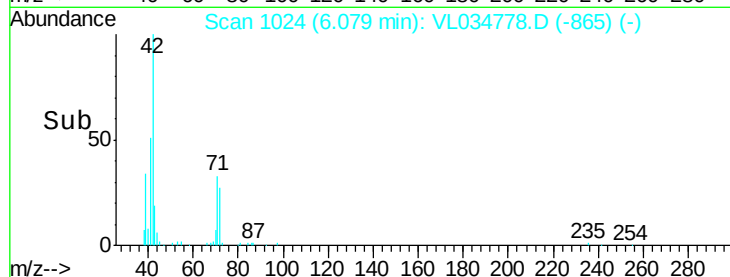
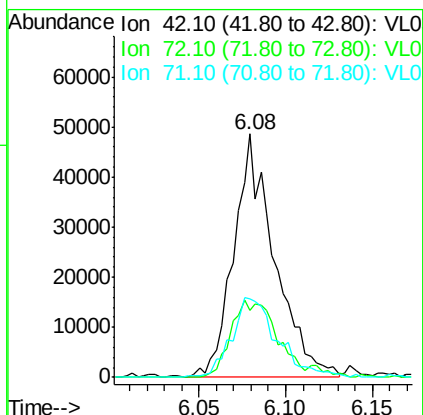
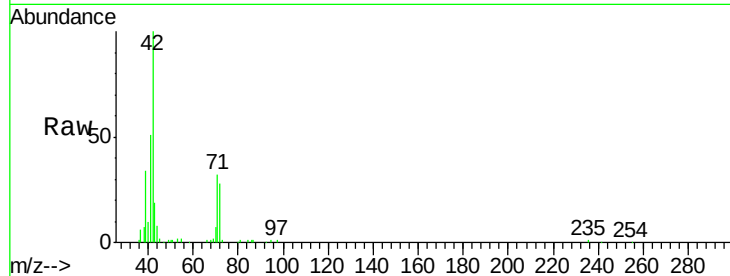
#41  
Tetrahydrofuran  
Concen: 1.032 ppbv m  
RT: 6.08 min Scan# 1024  
Delta R.T. 0.01 min  
Lab File: VL034778.D  
Acq: 4 Mar 2020 2:42

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC001

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 42      | 100   |       |       |
| 72      | 37.9  | 32.0  | 48.0  |
| 71      | 37.0  | 31.3  | 46.9  |

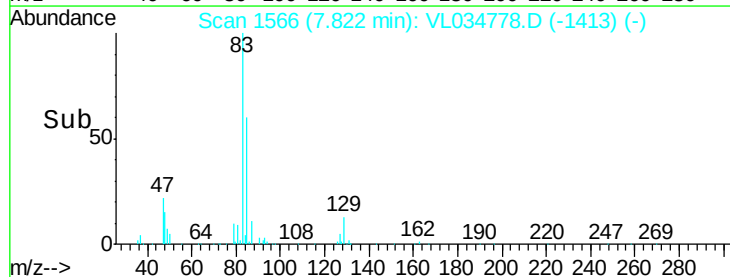
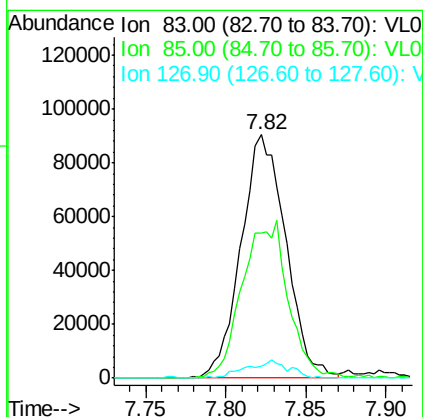
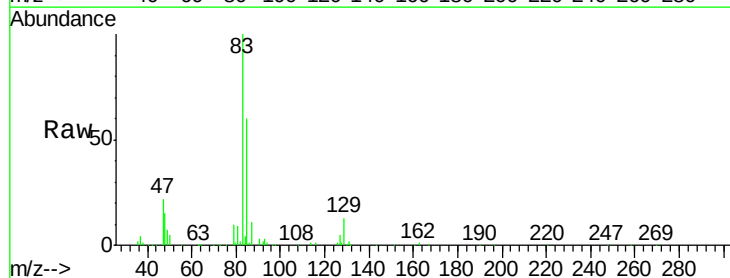
Manual Integrations  
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3/4/2020 4:45:00 PM

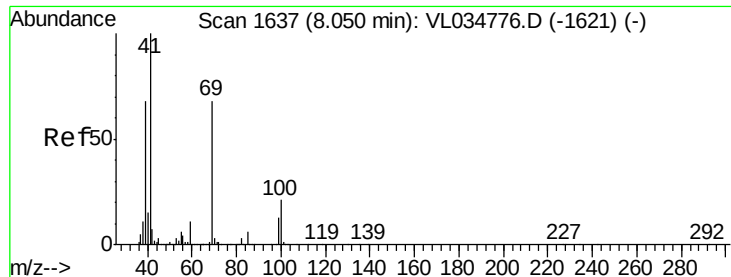


#42  
Bromodichloromethane  
Concen: 1.035 ppbv  
RT: 7.82 min Scan# 1566  
Delta R.T. -0.01 min  
Lab File: VL034778.D  
Acq: 4 Mar 2020 2:42

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 85      | 59.8  | 50.8  | 76.2  |
| 127     | 4.7   | 6.5   | 9.7#  |







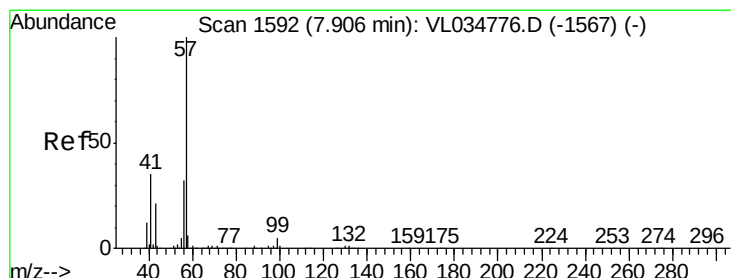
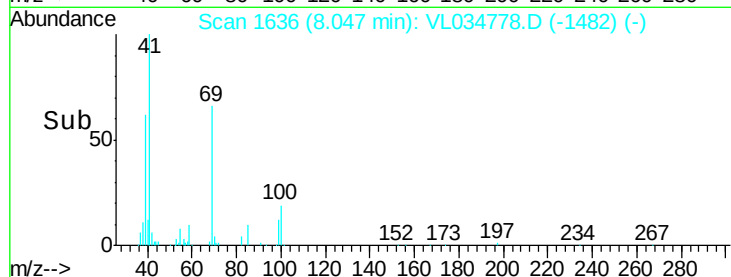
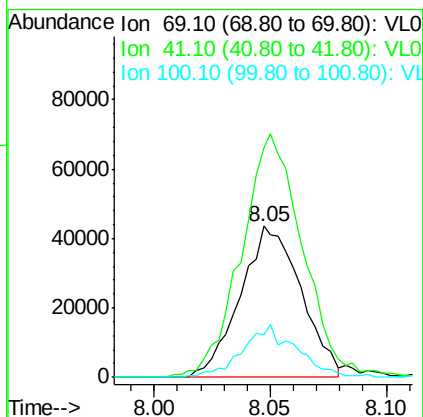
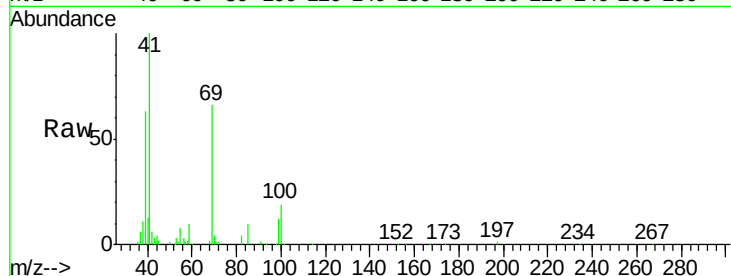
#43  
Methyl Methacrylate  
Concen: 0.942 ppbv  
RT: 8.05 min Scan# 1636  
Delta R.T. -0.00 min  
Lab File: VL034778.D  
Acq: 4 Mar 2020 2:42

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC001

| Tot Ion | Ion   | Ratio | Lower | Upper |
|---------|-------|-------|-------|-------|
| 69      | 100   |       |       |       |
| 41      | 162.8 | 121.6 | 182.4 |       |
| 100     | 31.0  | 23.8  | 35.8  |       |

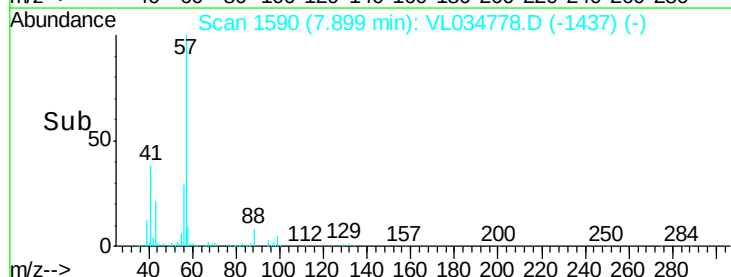
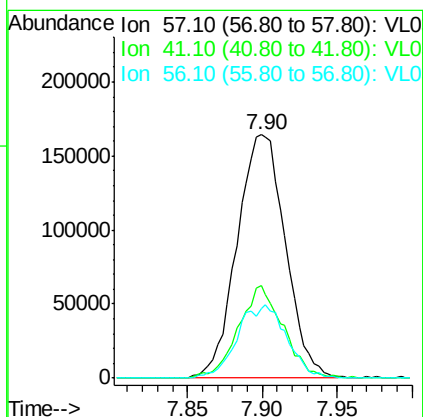
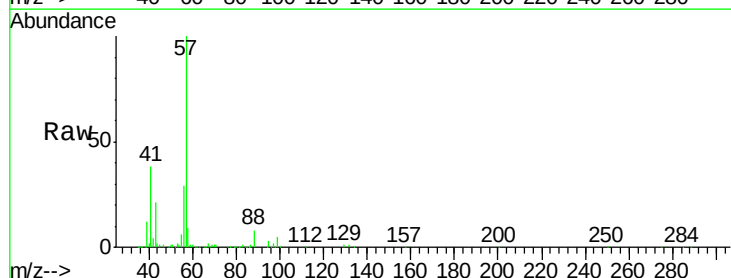
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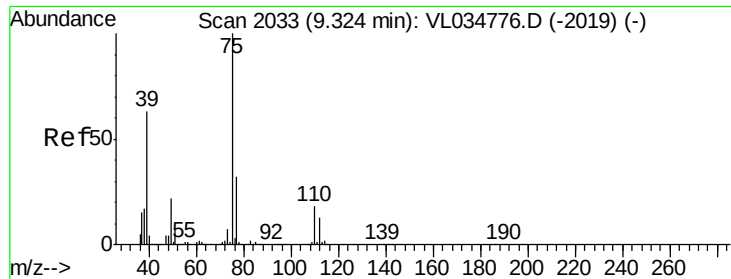
apatel  
3/4/2020 4:45:00 PM



#44  
2,2,4-Trimethylpentane  
Concen: 1.045 ppbv  
RT: 7.90 min Scan# 1590  
Delta R.T. -0.01 min  
Lab File: VL034778.D  
Acq: 4 Mar 2020 2:42

| Tgt Ion | Ion  | Ratio | Lower | Upper |
|---------|------|-------|-------|-------|
| 57      | 100  |       |       |       |
| 41      | 35.5 | 27.4  | 41.0  |       |
| 56      | 31.0 | 25.0  | 37.6  |       |





#45

t-1,3-Dichloropropene

Concen: 0.829 ppbv m

RT: 9.32 min Scan# 2032

Delta R.T. -0.00 min

Lab File: VL034778.D

Acq: 4 Mar 2020 2:42

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC001

Tot Ion: 75 Resp: 75979

Ion Ratio Lower Upper

75 100

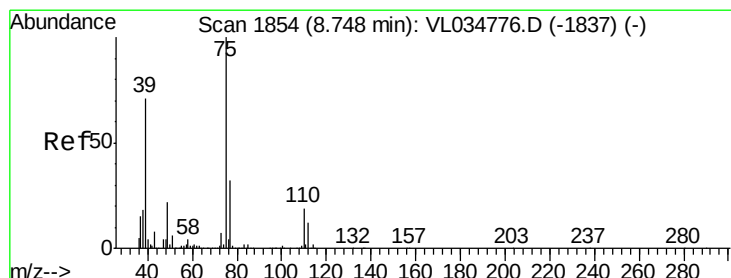
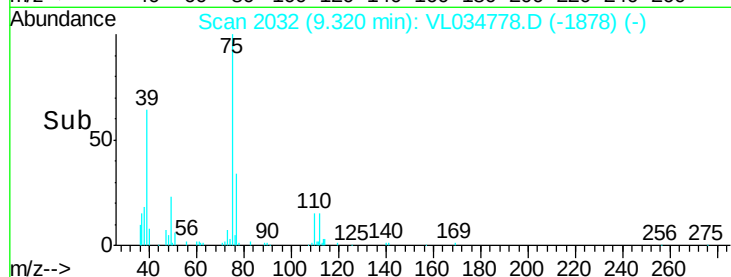
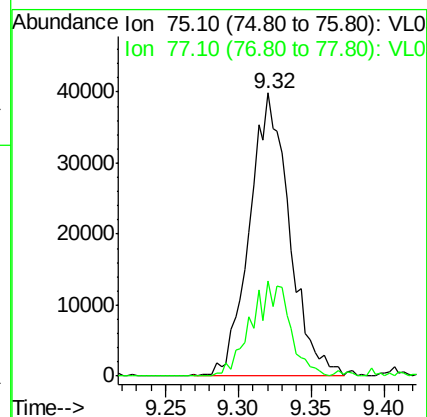
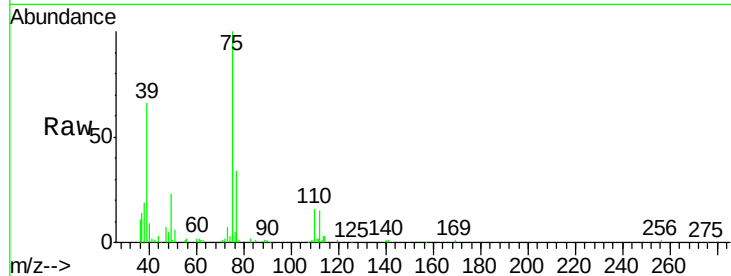
77 33.7 25.6 38.4

Manual Integrations

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#46

cis-1,3-Dichloropropene

Concen: 0.914 ppbv

RT: 8.74 min Scan# 1852

Delta R.T. -0.01 min

Lab File: VL034778.D

Acq: 4 Mar 2020 2:42

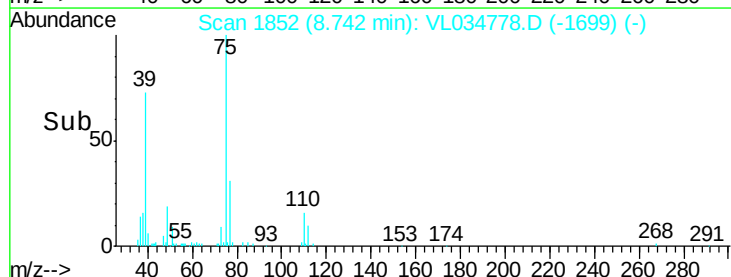
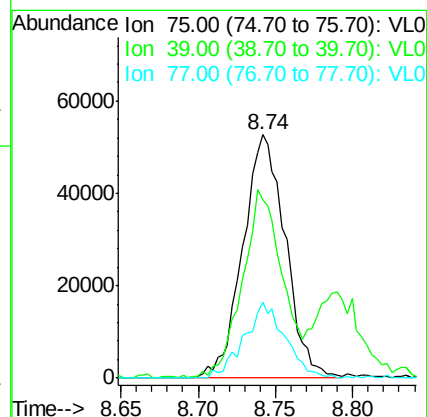
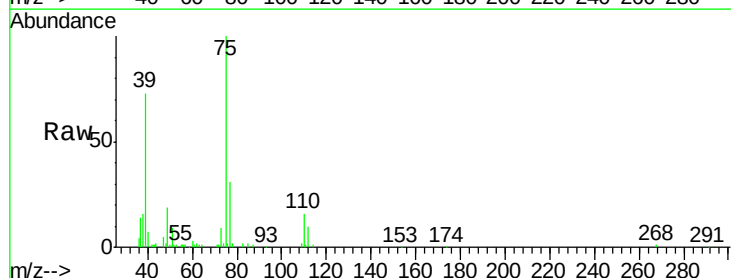
Tgt Ion: 75 Resp: 100613

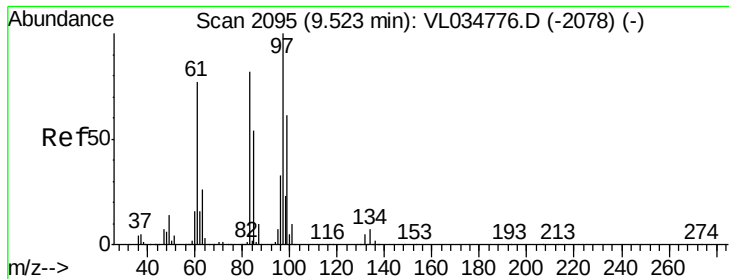
Ion Ratio Lower Upper

75 100

39 72.5 56.9 85.3

77 31.4 25.7 38.5





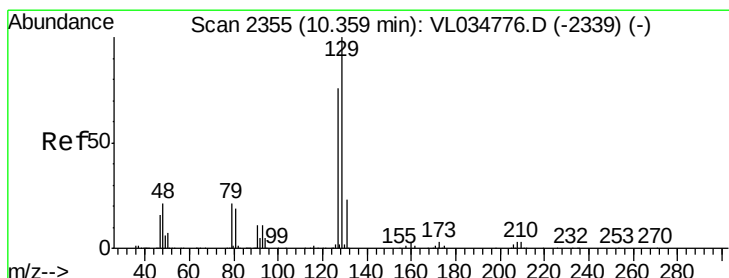
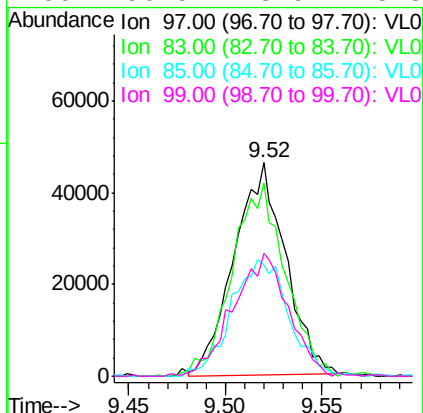
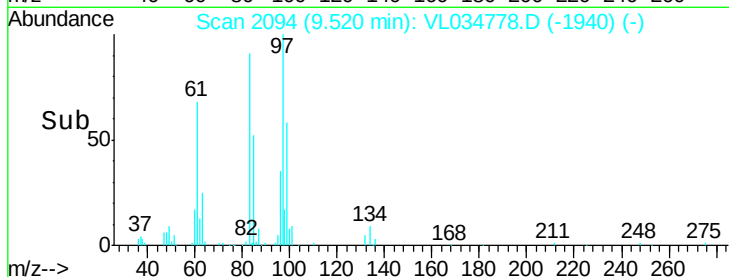
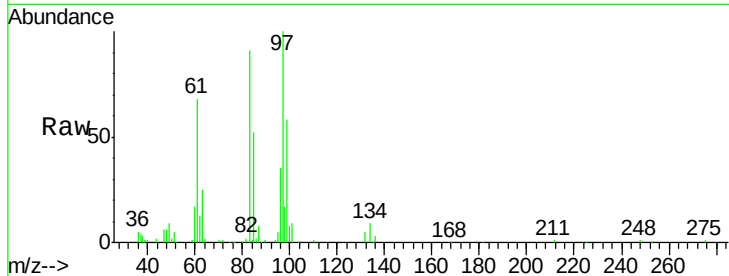
#47  
 1,1,2-Trichloroethane  
 Concen: 1.037 ppbv  
 RT: 9.52 min Scan# 2094  
 Delta R.T. -0.00 min  
 Lab File: VL034778.D  
 Acq: 4 Mar 2020 2:42

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC001

| Tot Ion   | 97    | Resp: | 85263 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 97        | 100   |       |       |
| 83        | 91.7  | 65.2  | 97.8  |
| 85        | 51.9  | 43.6  | 65.4  |
| 99        | 56.5  | 48.9  | 73.3  |

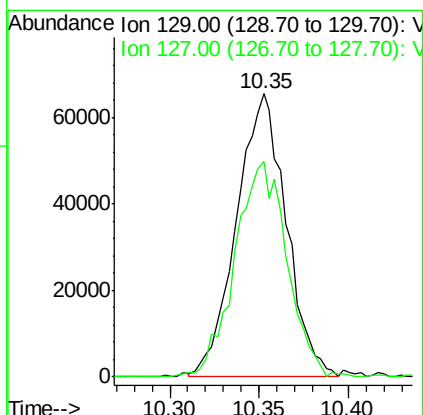
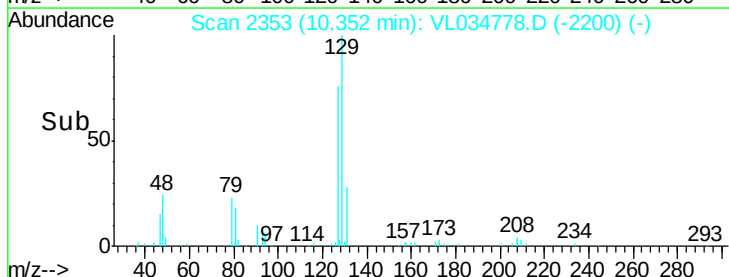
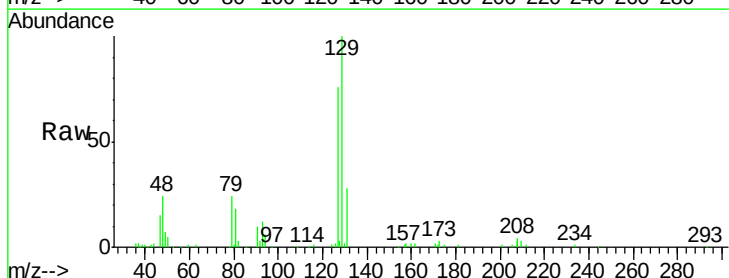
Manual Integrations  
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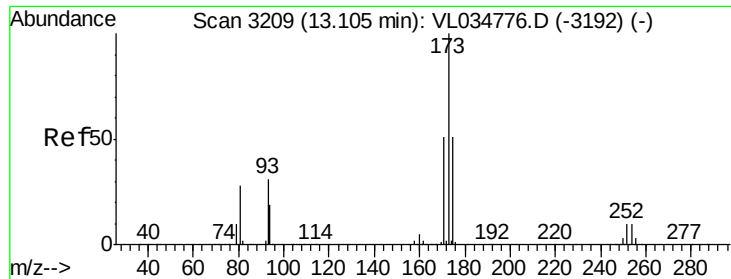
apatel  
 3/4/2020 4:45:00 PM



#48  
 Dibromochloromethane  
 Concen: 0.995 ppbv  
 RT: 10.35 min Scan# 2353  
 Delta R.T. -0.01 min  
 Lab File: VL034778.D  
 Acq: 4 Mar 2020 2:42

| Tgt Ion   | 129   | Resp: | 127644 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 129       | 100   |       |        |
| 127       | 79.4  | 39.0  | 117.0  |





#49

Bromoform

Concen: 0.978 ppbv

RT: 13.10 min Scan# 3208

Delta R.T. -0.00 min

Lab File: VL034778.D

Acq: 4 Mar 2020 2:42

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC001

Tot Ion:173 Resp: 109268

Ion Ratio Lower Upper

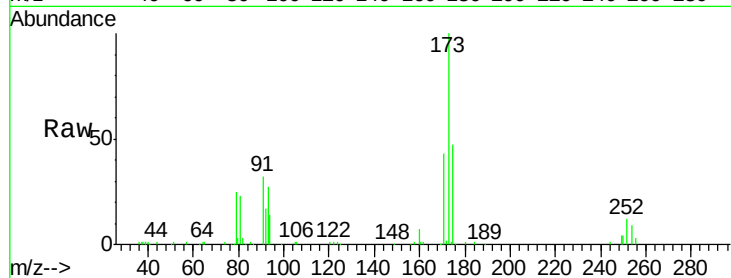
173 100

175 49.8 39.8 59.6

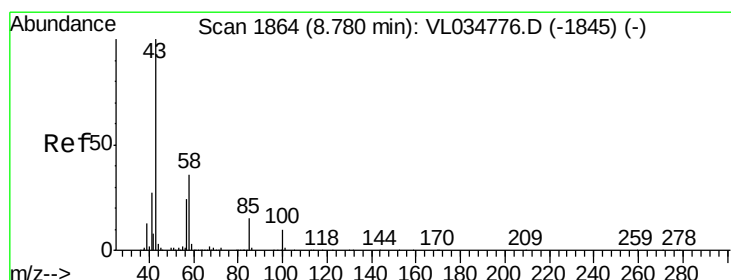
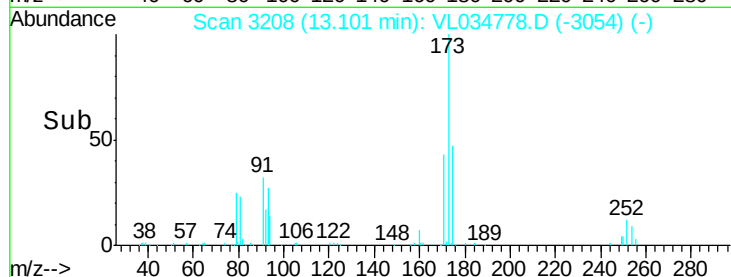
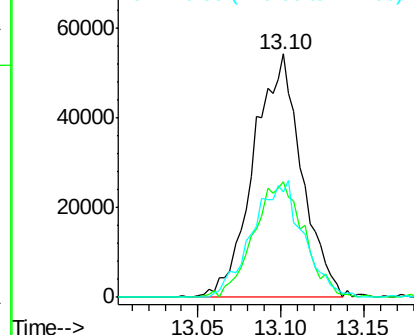
171 50.9 41.0 61.4

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Abundance Ion 172.90 (172.60 to 173.60): V  
Ion 174.90 (174.60 to 175.60): V  
Ion 170.90 (170.60 to 171.60): V



#50

4-Methyl-2-Pentanone

Concen: 1.050 ppbv

RT: 8.79 min Scan# 1867

Delta R.T. 0.01 min

Lab File: VL034778.D

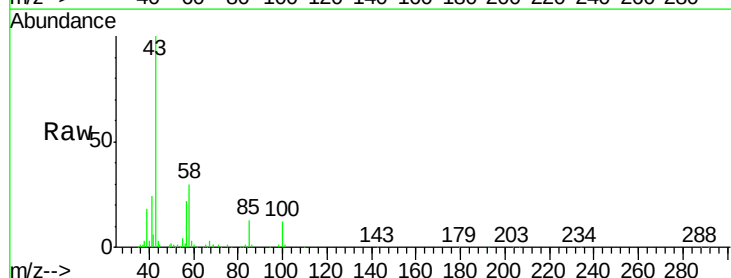
Acq: 4 Mar 2020 2:42

Tgt Ion: 43 Resp: 219207

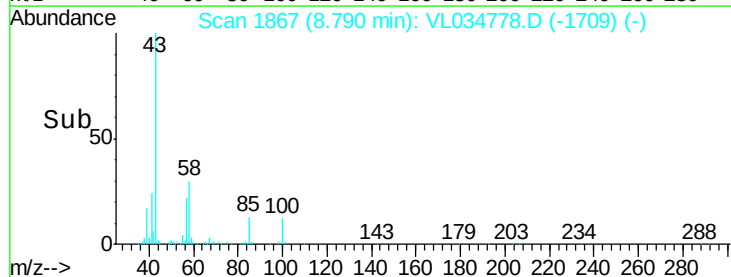
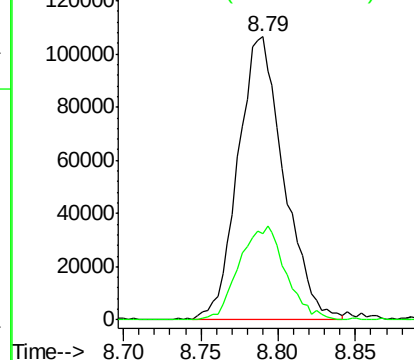
Ion Ratio Lower Upper

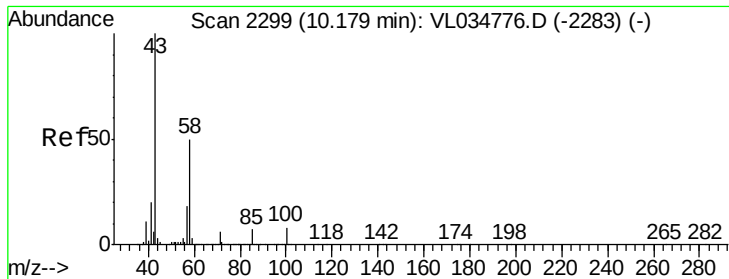
43 100

58 33.9 28.7 43.1



Abundance Ion 43.10 (42.80 to 43.80): VL0  
Ion 58.10 (57.80 to 58.80): VL0





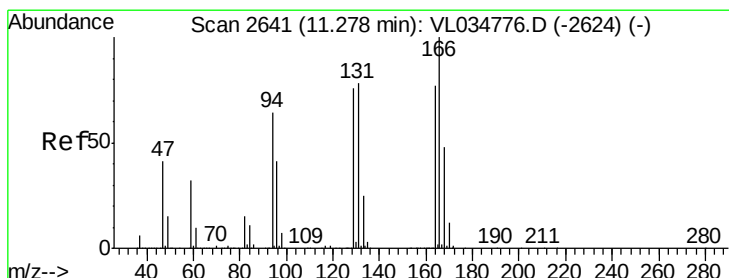
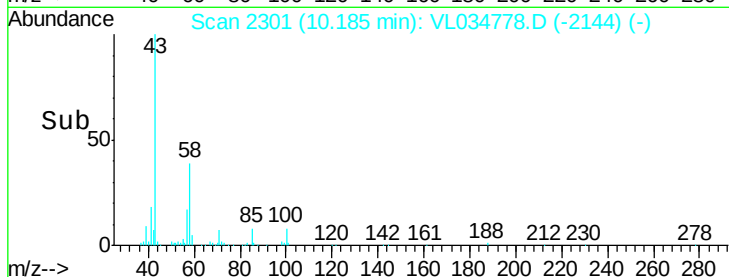
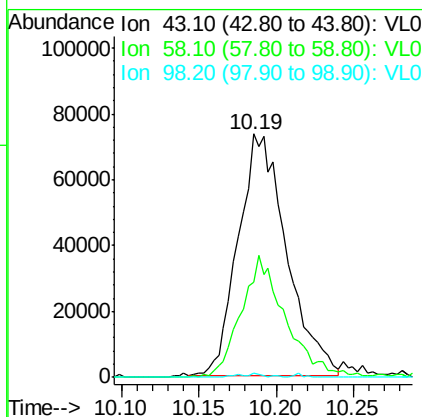
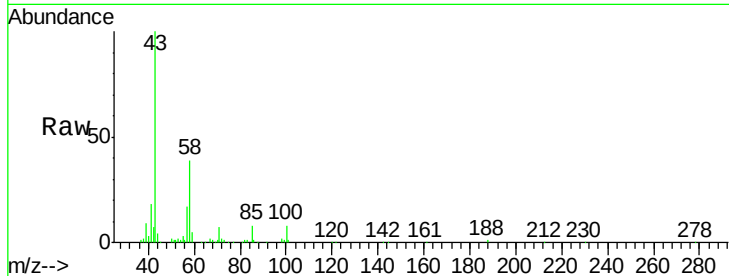
#51  
2-Hexanone  
Concen: 0.977 ppbv  
RT: 10.19 min Scan# 2301  
Delta R.T. 0.01 min  
Lab File: VL034778.D  
Acq: 4 Mar 2020 2:42

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC001

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 58      | 46.1  | 38.6  | 58.0  |
| 98      | 0.7   | 0.2   | 0.4   |

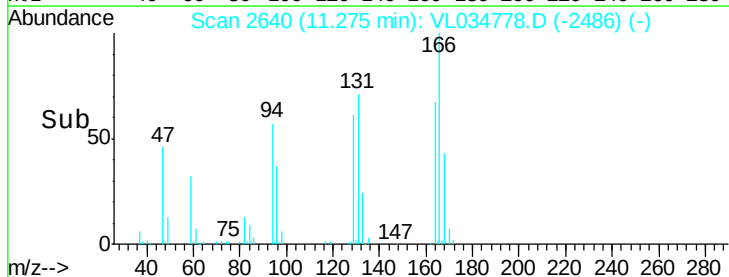
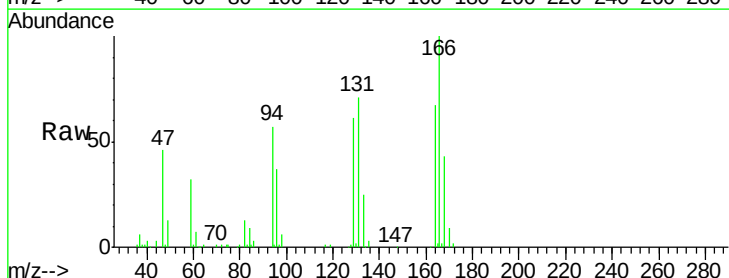
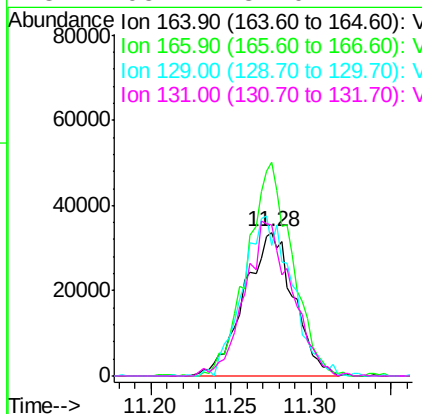
Manual Integrations  
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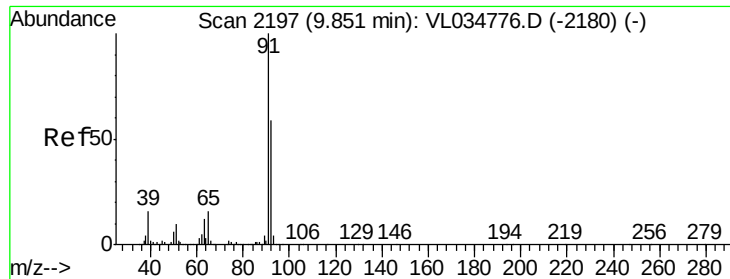
apatel  
3/4/2020 4:45:00 PM



#52  
Tetrachloroethene  
Concen: 0.968 ppbv  
RT: 11.28 min Scan# 2640  
Delta R.T. -0.00 min  
Lab File: VL034778.D  
Acq: 4 Mar 2020 2:42

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 164     | 100   |       |       |
| 166     | 149.0 | 103.3 | 154.9 |
| 129     | 90.5  | 79.0  | 118.4 |
| 131     | 105.4 | 81.0  | 121.4 |





#53

Toluene

Concen: 0.997 ppbv

RT: 9.85 min Scan# 2196

Delta R.T. -0.00 min

Lab File: VL034778.D

Acq: 4 Mar 2020 2:42

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC001

Tot Ion: 91 Resp: 213062

Ion Ratio Lower Upper

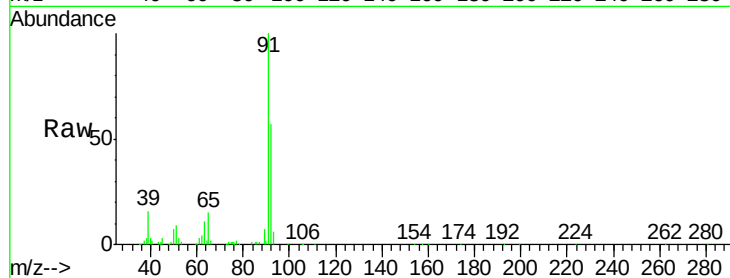
91 100

92 57.2 48.2 72.2

Manual Integrations  
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Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

9.85

120000

100000

80000

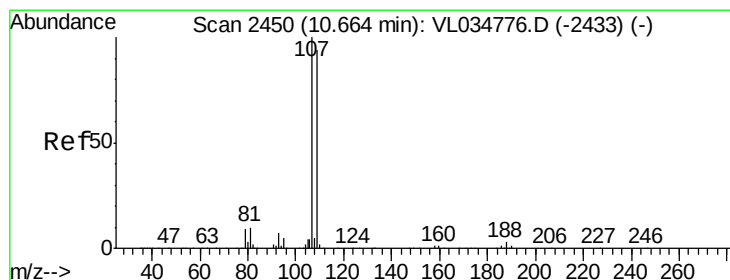
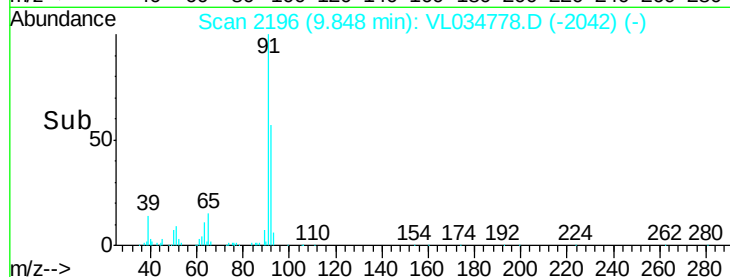
60000

40000

20000

0

Time-->



#54

1,2-Dibromoethane

Concen: 1.042 ppbv m

RT: 10.66 min Scan# 2448

Delta R.T. -0.01 min

Lab File: VL034778.D

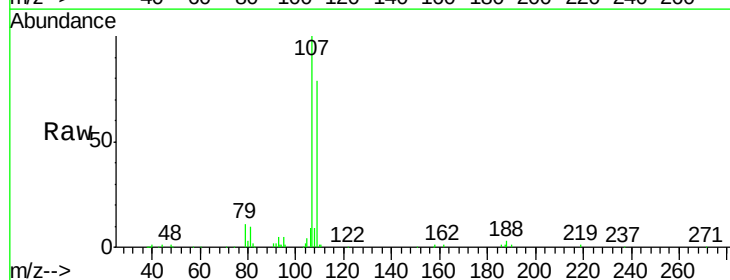
Acq: 4 Mar 2020 2:42

Tgt Ion: 107 Resp: 127903

Ion Ratio Lower Upper

107 100

109 78.7 75.0 112.6



Abundance Ion 107.00 (106.70 to 107.70): V

Ion 109.00 (108.70 to 109.70): V

10.66

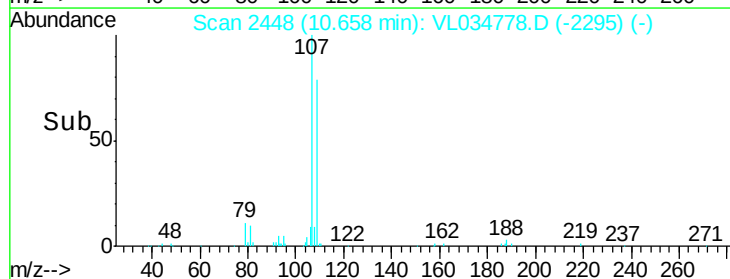
60000

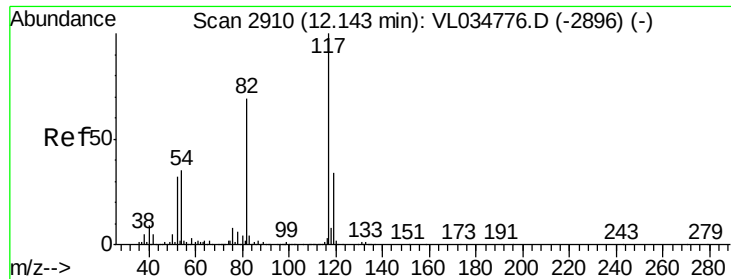
40000

20000

0

Time-->





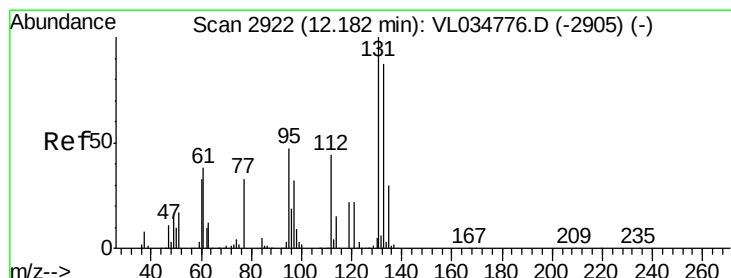
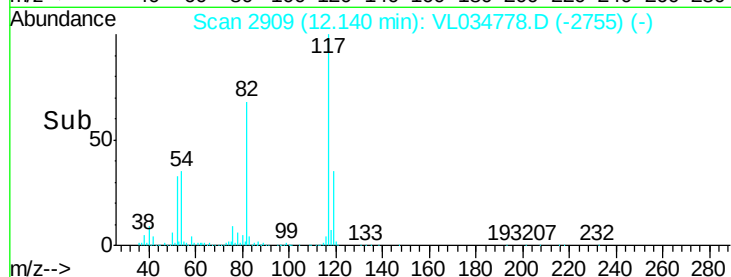
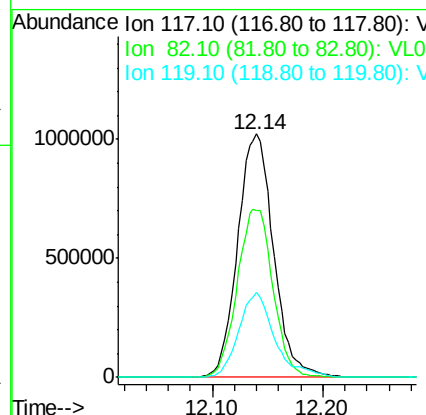
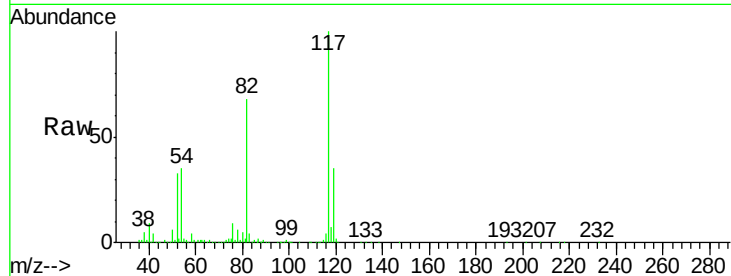
#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.14 min Scan# 2909  
Delta R.T. -0.00 min  
Lab File: VL034778.D  
Acq: 4 Mar 2020 2:42

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC001

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 68.7  | 53.9  | 80.9  |
| 119     | 34.8  | 25.0  | 37.4  |

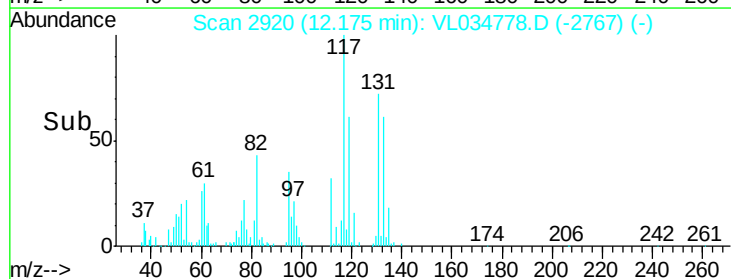
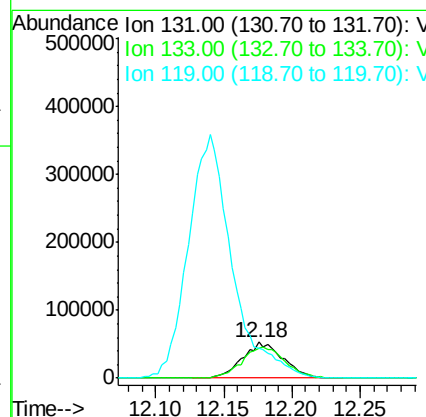
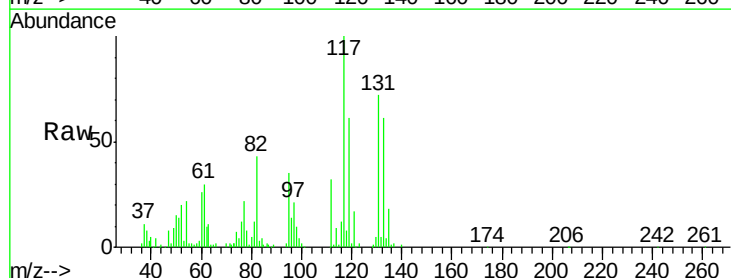
Manual Integrations  
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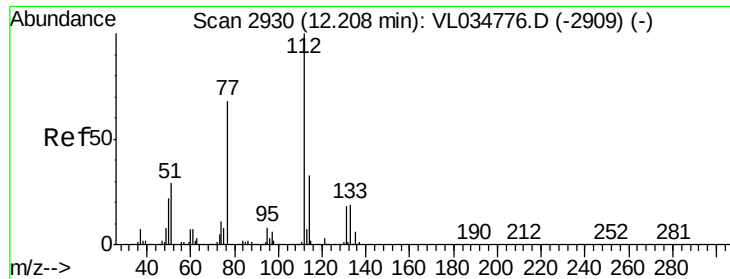
apatel  
3/4/2020 4:45:00 PM



#56  
1,1,1,2-Tetrachloroethane  
Concen: 1.106 ppbv  
RT: 12.18 min Scan# 2920  
Delta R.T. -0.01 min  
Lab File: VL034778.D  
Acq: 4 Mar 2020 2:42

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 131     | 100   |       |        |
| 133     | 91.7  | 75.4  | 113.0  |
| 119     | 731.7 | 110.5 | 165.7# |





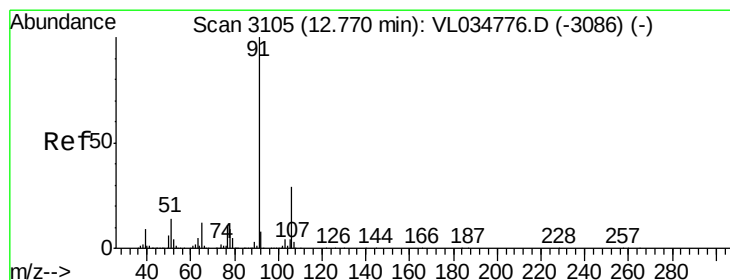
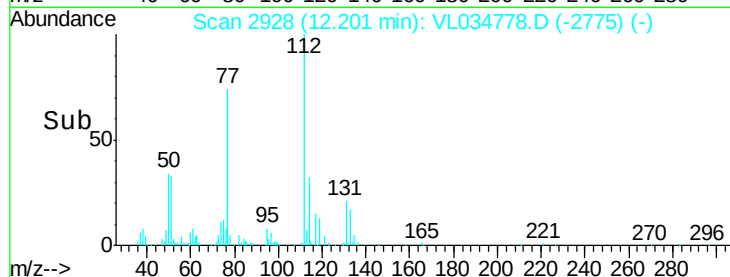
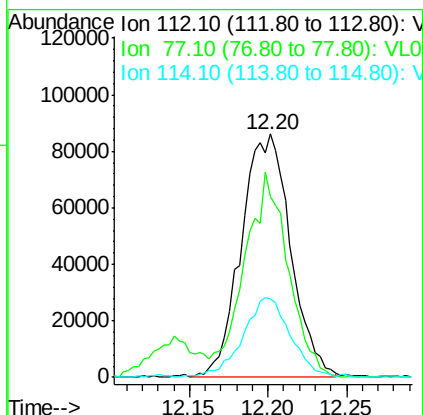
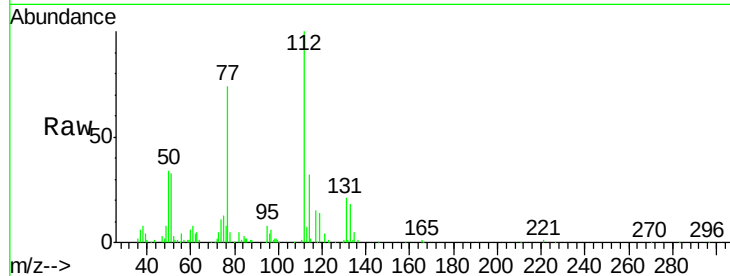
#57  
Chlorobenzene  
Concen: 1.100 ppbv m  
RT: 12.20 min Scan# 2928  
Delta R.T. -0.01 min  
Lab File: VL034778.D  
Acq: 4 Mar 2020 2:42

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC001

| Tot Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 112     | 100   | 187742 |       |       |
| 77      | 74.1  | 55.6   | 83.4  |       |
| 114     | 32.3  | 29.4   | 36.0  |       |

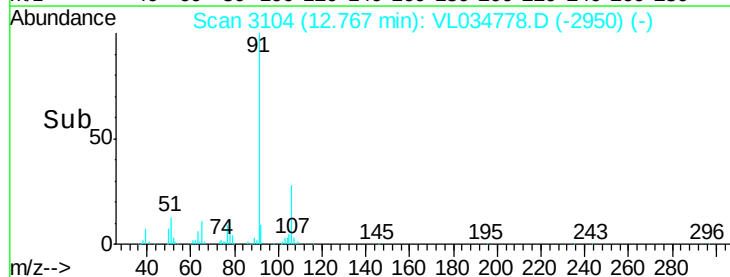
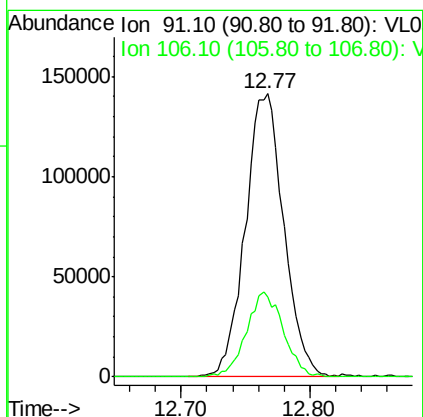
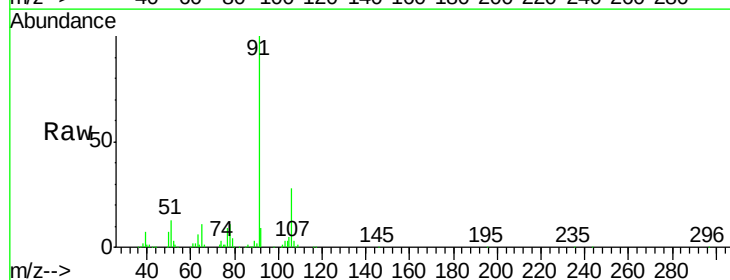
Manual Integrations  
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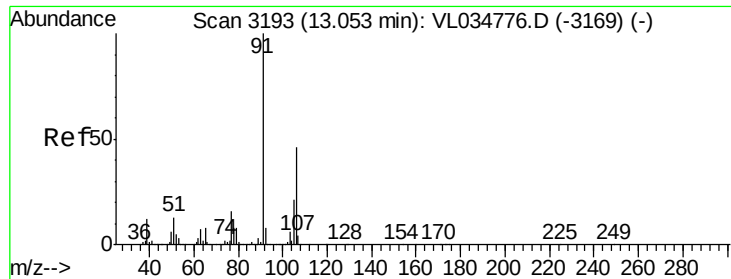


#58  
Ethyl Benzene  
Concen: 1.048 ppbv  
RT: 12.77 min Scan# 3104  
Delta R.T. -0.00 min  
Lab File: VL034778.D  
Acq: 4 Mar 2020 2:42

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 91      | 100   | 294016 |       |       |
| 106     | 28.4  | 22.8   | 34.2  |       |







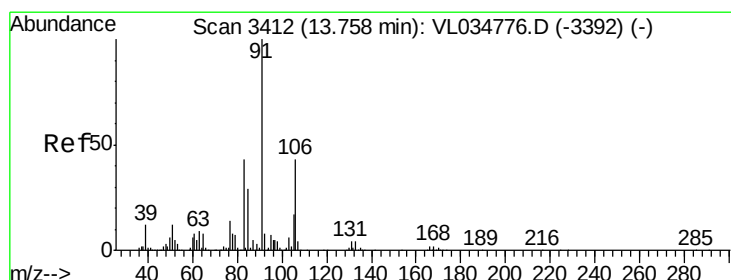
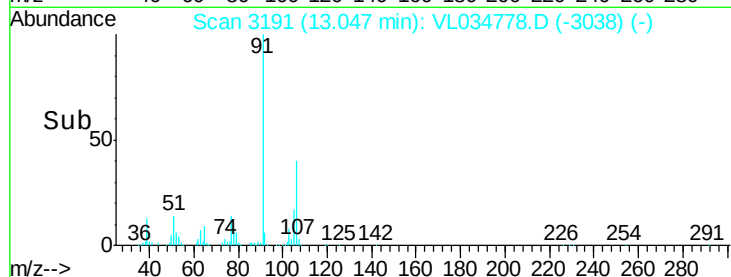
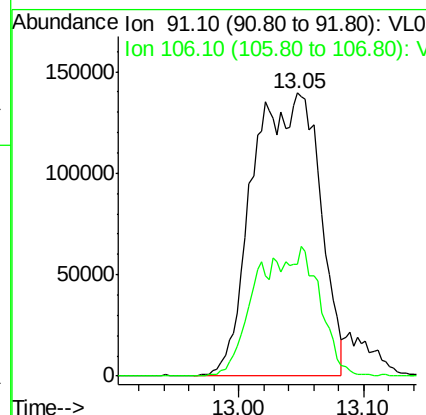
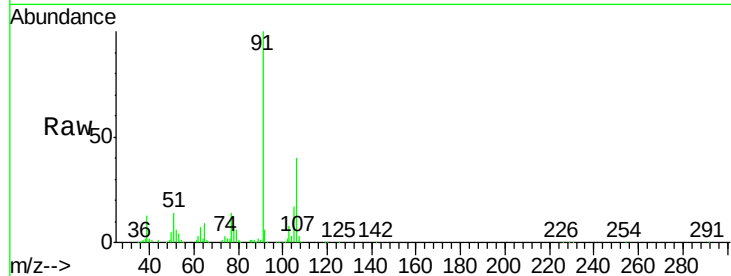
#59  
m/p-Xylene  
Concen: 2.143 ppbv m  
RT: 13.05 min Scan# 3191  
Delta R.T. -0.01 min  
Lab File: VL034778.D  
Acq: 4 Mar 2020 2:42

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC001

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 106     | 42.9  | 35.8  | 53.8  |

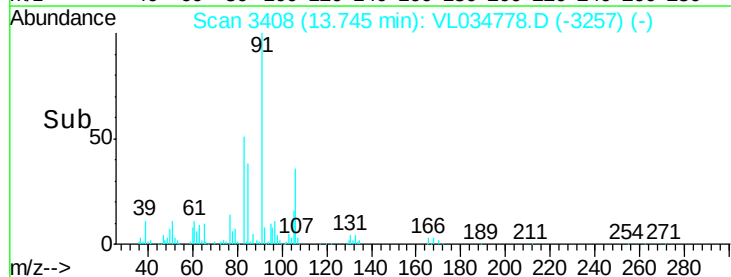
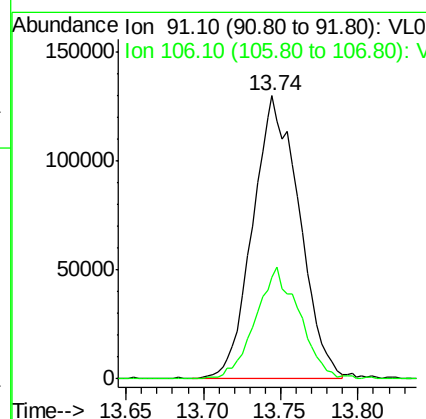
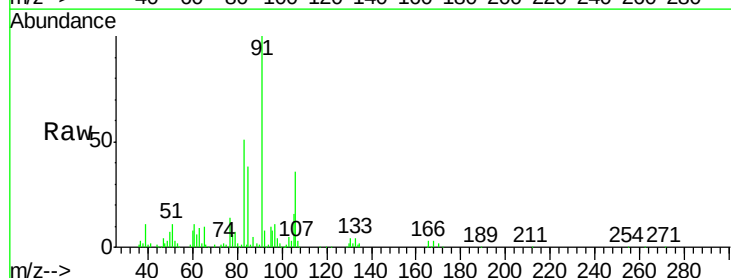
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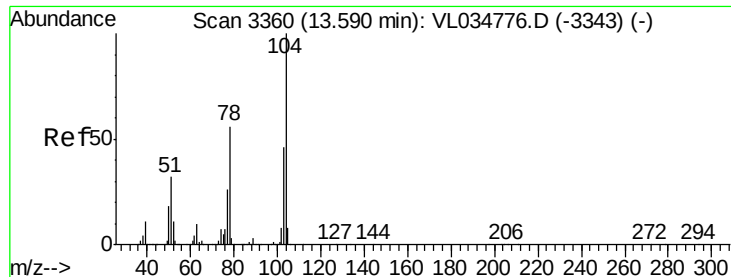
apatel  
3/4/2020 4:45:00 PM



#60  
o-Xylene  
Concen: 1.126 ppbv  
RT: 13.74 min Scan# 3408  
Delta R.T. -0.01 min  
Lab File: VL034778.D  
Acq: 4 Mar 2020 2:42

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 106     | 37.4  | 21.7  | 65.1  |





#61

Stvrene

Concen: 0.965 ppbv

RT: 13.59 min Scan# 3359

Delta R.T. -0.00 min

Lab File: VL034778.D

Acq: 4 Mar 2020 2:42

Instrument :

MSVOA\_L

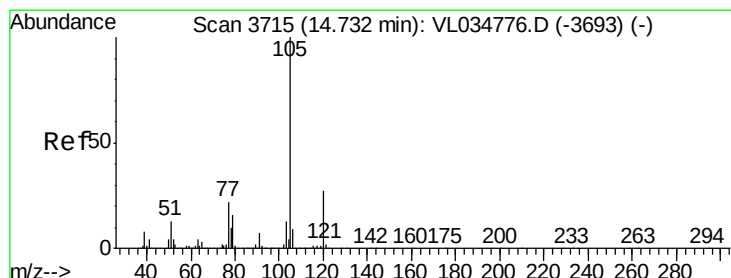
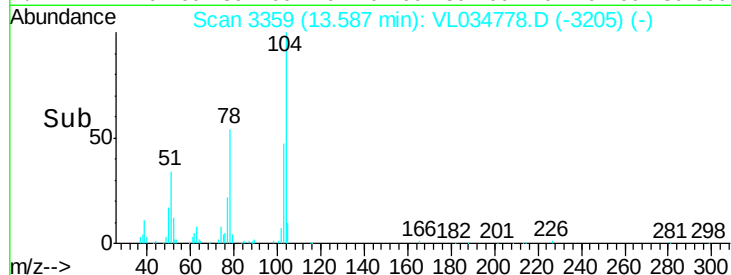
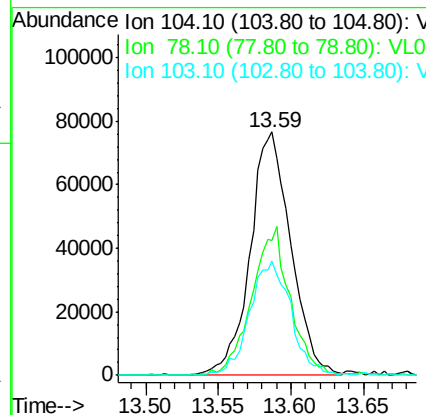
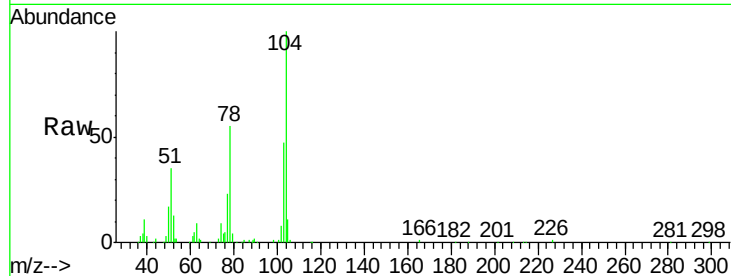
ClientSampleId :

VSTDIC001

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 104   | Resp: | 149887 |
| Ion Ratio | Lower | Upper |        |
| 104       | 100   |       |        |
| 78        | 58.1  | 44.7  | 67.1   |
| 103       | 47.5  | 38.2  | 57.2   |

Manual Integrations  
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#62

Isopropylbenzene

Concen: 1.118 ppbv

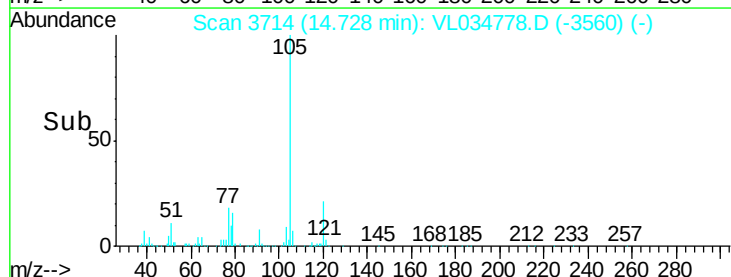
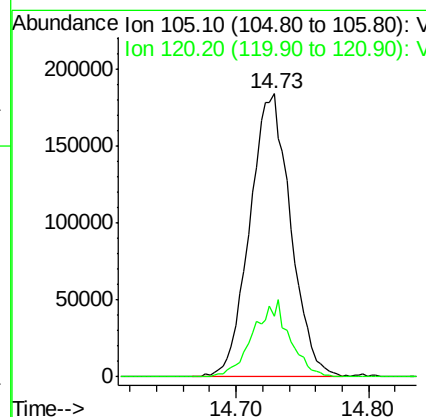
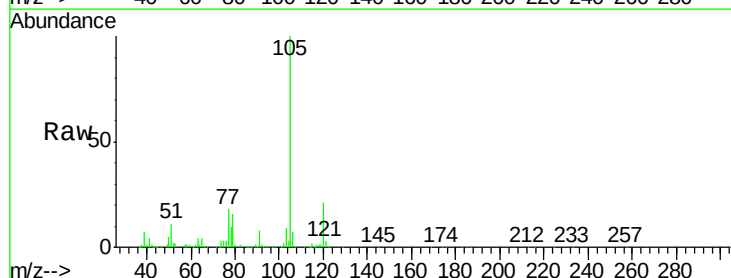
RT: 14.73 min Scan# 3714

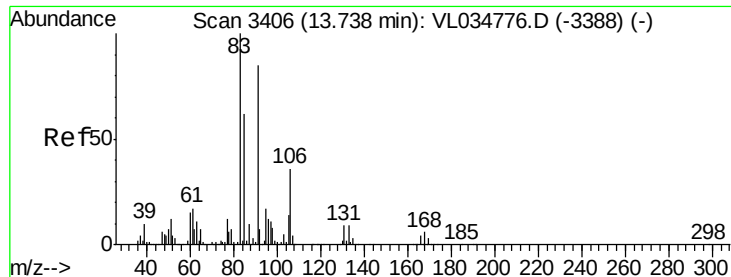
Delta R.T. -0.00 min

Lab File: VL034778.D

Acq: 4 Mar 2020 2:42

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 105   | Resp: | 395540 |
| Ion Ratio | Lower | Upper |        |
| 105       | 100   |       |        |
| 120       | 24.2  | 20.5  | 30.7   |





#63

1,1,2,2-Tetrachloroethane

Concen: 1.057 ppbv m

RT: 13.73 min Scan# 3404

Delta R.T. -0.01 min

Lab File: VL034778.D

Acq: 4 Mar 2020 2:42

Instrument :

MSVOA\_L

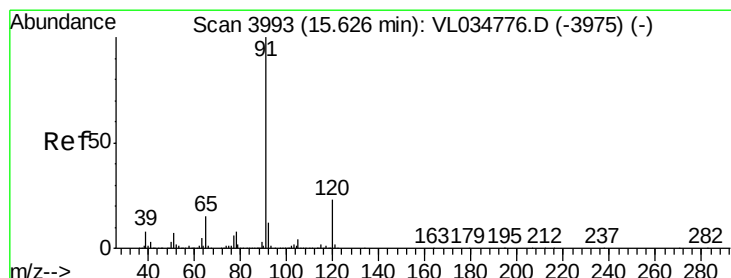
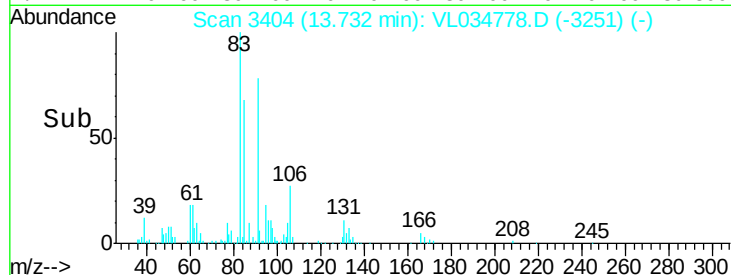
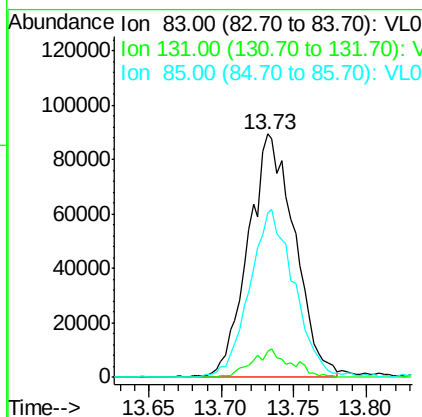
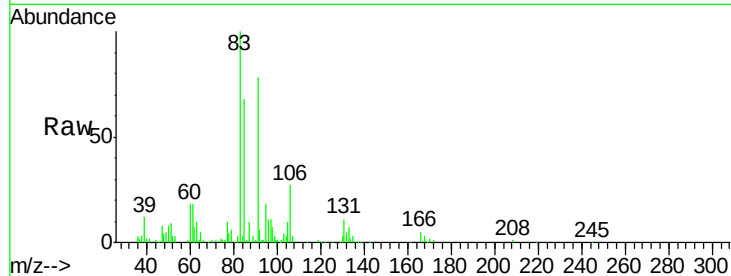
ClientSampleId :

VSTDIC001

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 83    | Resp: | 199702 |
| Ion Ratio | Lower | Upper |        |
| 83        | 100   |       |        |
| 131       | 9.9   | 4.7   | 14.0   |
| 85        | 66.6  | 32.9  | 98.7   |

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#64

n-propylbenzene

Concen: 1.050 ppbv m

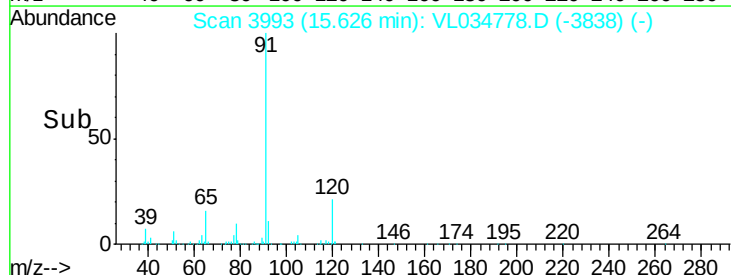
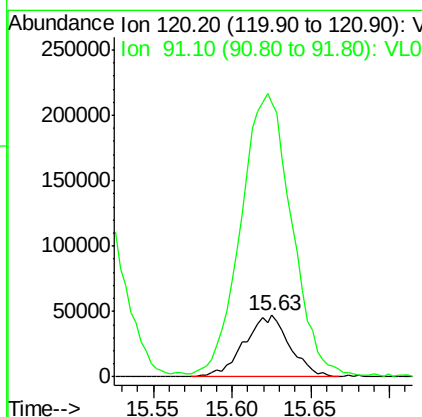
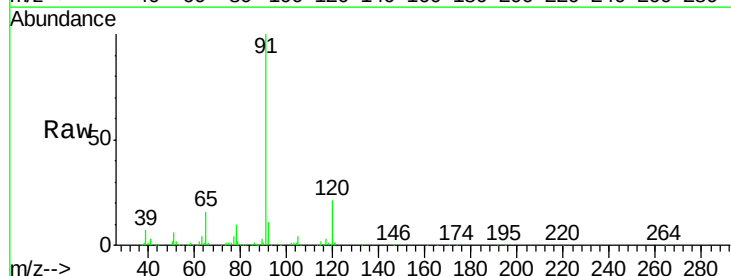
RT: 15.63 min Scan# 3993

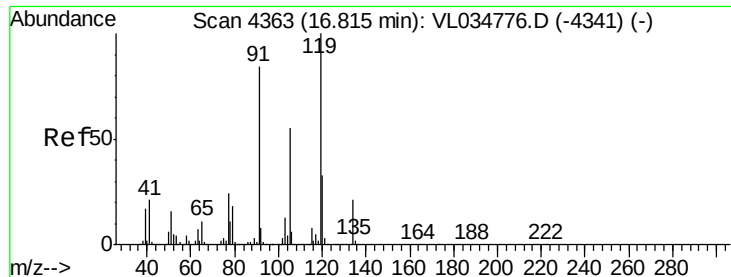
Delta R.T. -0.00 min

Lab File: VL034778.D

Acq: 4 Mar 2020 2:42

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 120   | Resp: | 95719  |
| Ion Ratio | Lower | Upper |        |
| 120       | 100   |       |        |
| 91        | 303.8 | 379.4 | 569.2# |





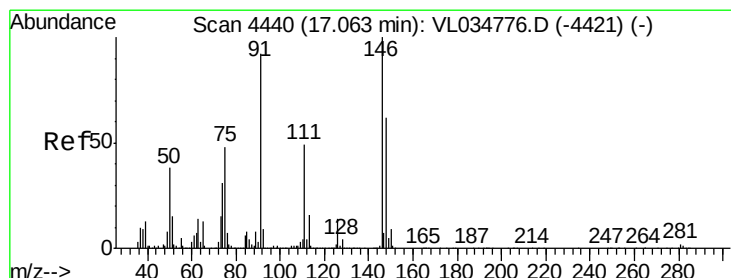
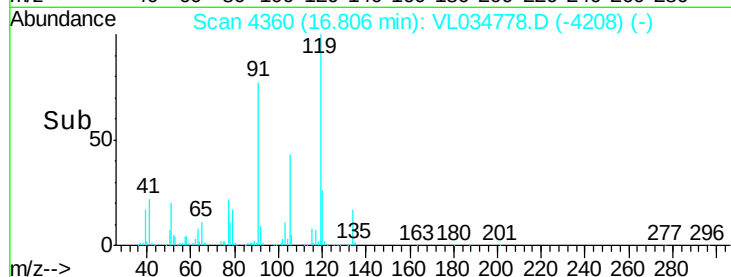
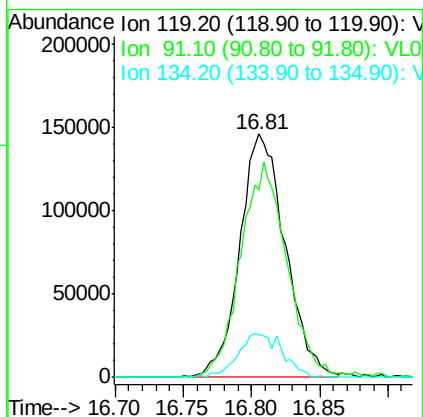
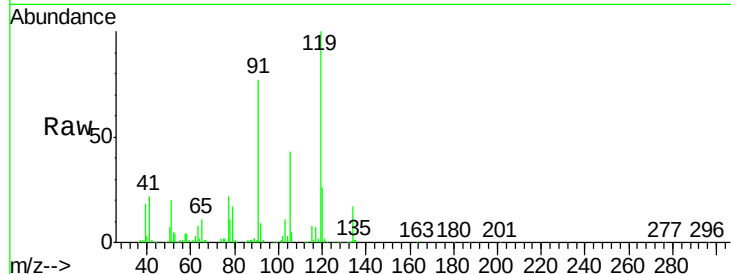
#65  
tert-Butylbenzene  
Concen: 1.098 ppbv  
RT: 16.81 min Scan# 4360  
Delta R.T. -0.01 min  
Lab File: VL034778.D  
Acq: 4 Mar 2020 2:42

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC001

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 119     | 100   |       |       |
| 91      | 91.3  | 69.8  | 104.6 |
| 134     | 17.8  | 15.9  | 23.9  |

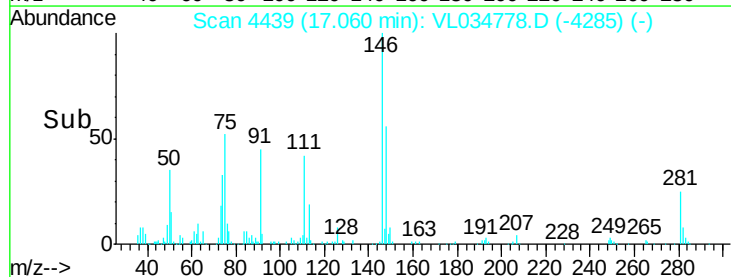
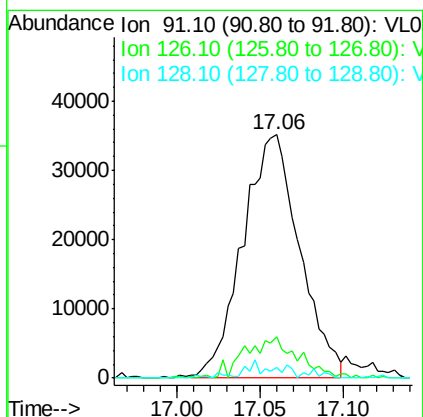
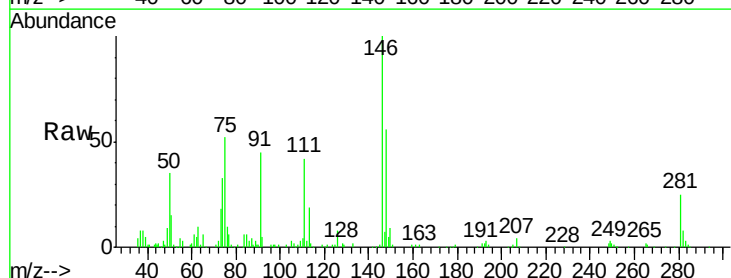
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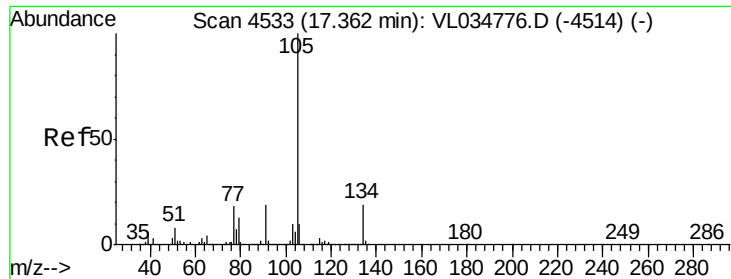
apatel  
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#66  
Benzyl Chloride  
Concen: 0.752 ppbv m  
RT: 17.06 min Scan# 4439  
Delta R.T. -0.00 min  
Lab File: VL034778.D  
Acq: 4 Mar 2020 2:42

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 126     | 15.9  | 12.6  | 18.8  |
| 128     | 2.9   | 4.3   | 6.5#  |





#67

sec-Butylbenzene

Concen: 1.113 ppbv

RT: 17.36 min Scan# 4531

Delta R.T. -0.01 min

Lab File: VL034778.D

Acq: 4 Mar 2020 2:42

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC001

Tot Ion: 105 Resp: 491433

Ion Ratio Lower Upper

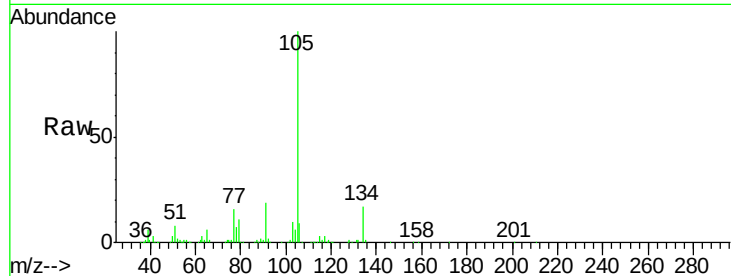
105 100

134 17.4 14.7 22.1

Manual Integrations  
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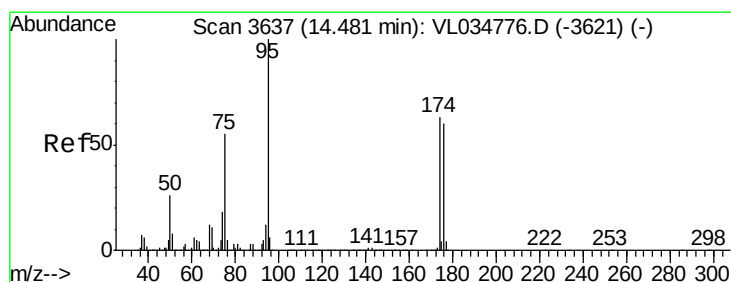
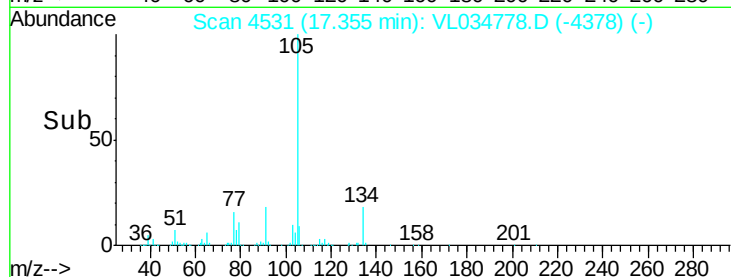
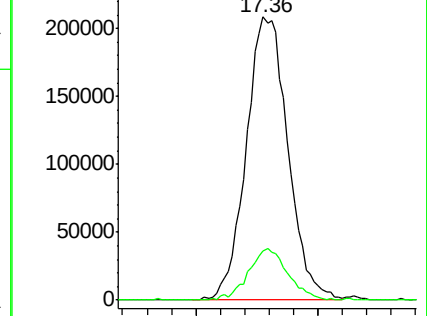
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Abundance Ion 105.10 (104.80 to 105.80): V

Ion 134.20 (133.90 to 134.90): V



#68

1-Bromo-4-Fluorobenzene

Concen: 10.168 ppbv

RT: 14.47 min Scan# 3635

Delta R.T. -0.01 min

Lab File: VL034778.D

Acq: 4 Mar 2020 2:42

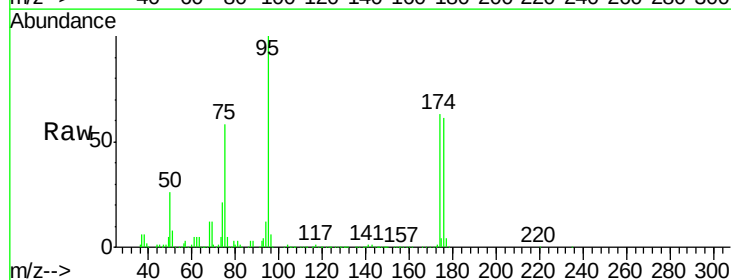
Tgt Ion: 95 Resp: 1922878

Ion Ratio Lower Upper

95 100

174 63.6 50.6 76.0

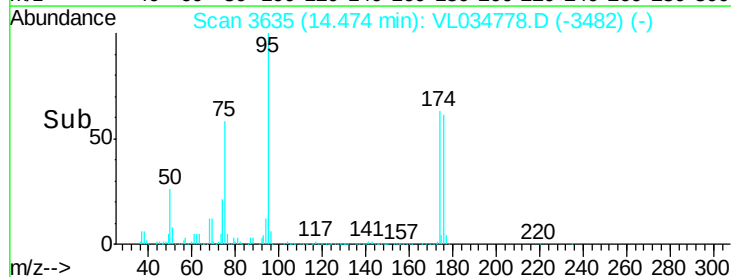
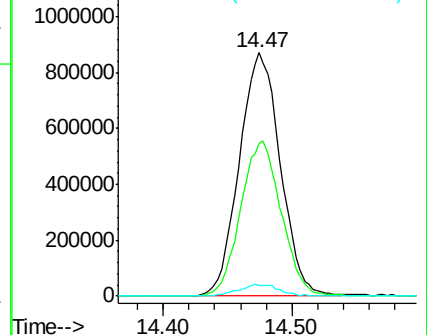
175 4.8 3.8 5.6

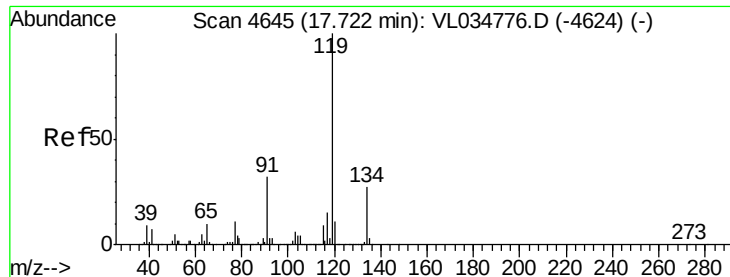


Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V





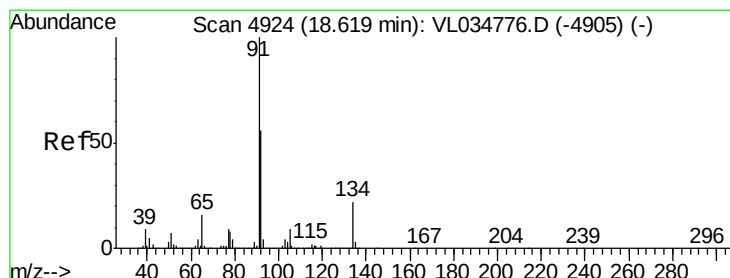
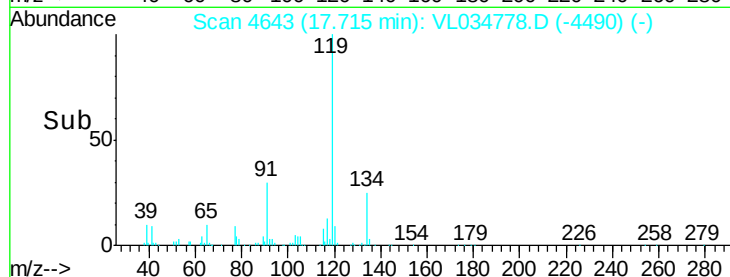
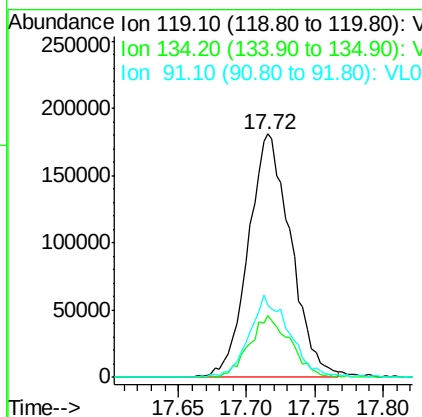
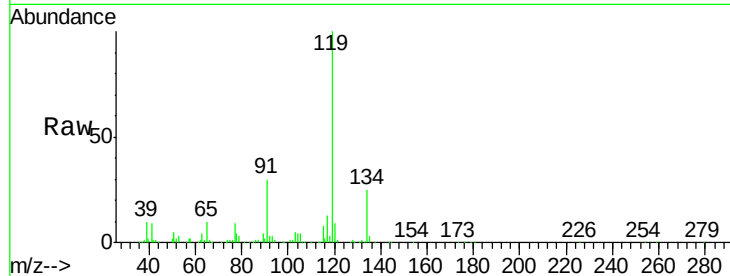
#69  
 p-Isopropyltoluene  
 Concen: 1.075 ppbv  
 RT: 17.72 min Scan# 4643  
 Delta R.T. -0.01 min  
 Lab File: VL034778.D  
 Acq: 4 Mar 2020 2:42

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC001

| Tot Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 119     | 100   | 390758 |       |       |
| 134     | 24.7  | 20.6   | 30.8  |       |
| 91      | 32.6  | 25.3   | 37.9  |       |

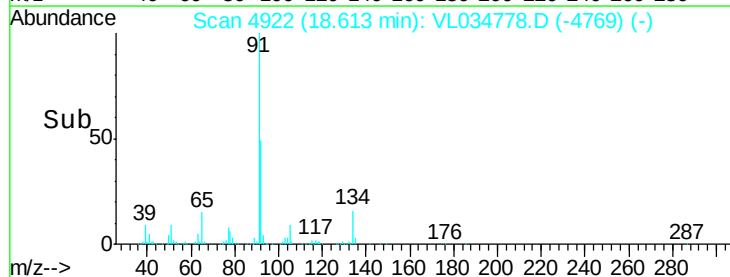
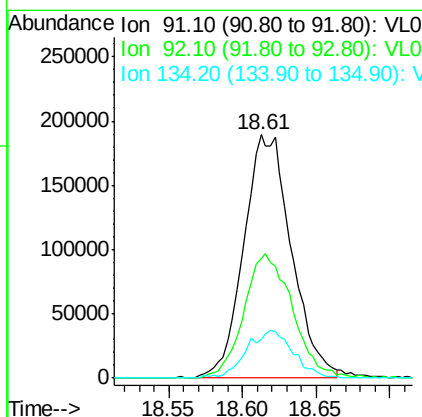
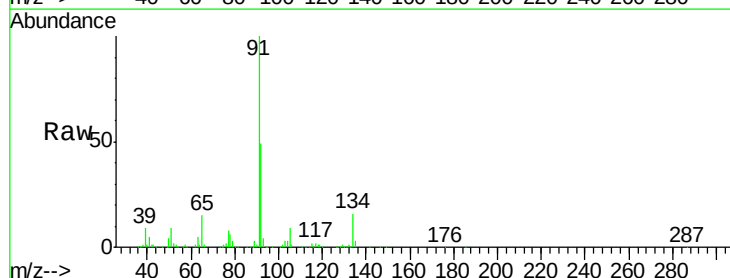
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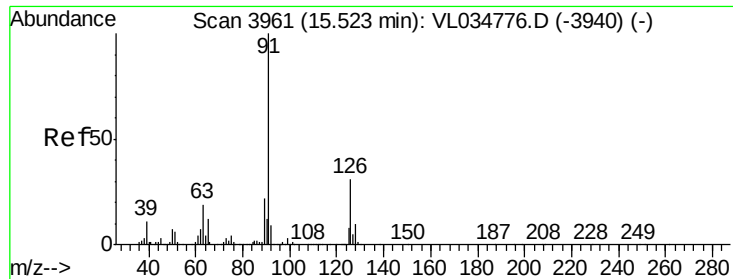
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#70  
 n-Butylbenzene  
 Concen: 1.073 ppbv m  
 RT: 18.61 min Scan# 4922  
 Delta R.T. -0.01 min  
 Lab File: VL034778.D  
 Acq: 4 Mar 2020 2:42

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 91      | 100   | 425099 |       |       |
| 92      | 0.0   | 44.0   | 66.0# |       |
| 134     | 0.0   | 17.7   | 26.5# |       |





#71

2-Chlorotoluene

Concen: 1.050 ppbv

RT: 15.51 min Scan# 3958

Delta R.T. -0.01 min

Lab File: VL034778.D

Acq: 4 Mar 2020 2:42

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC001

Tot Ion: 91 Resp: 288529

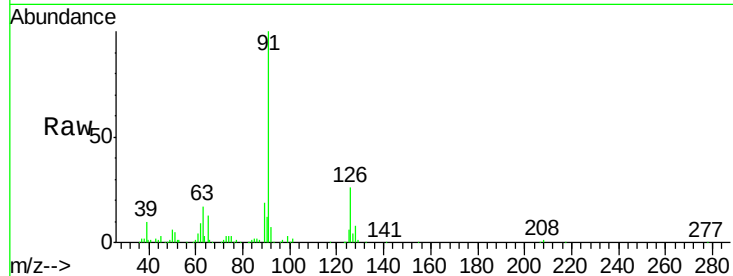
Ion Ratio Lower Upper

91 100

126 28.4 11.7 46.7

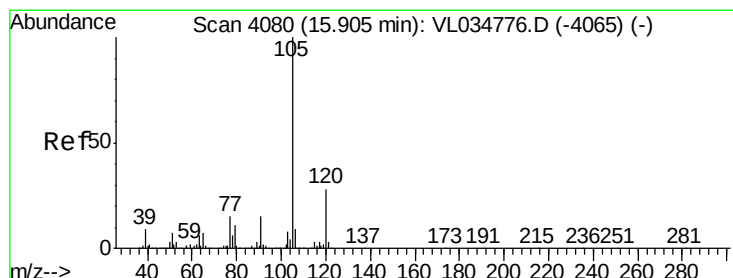
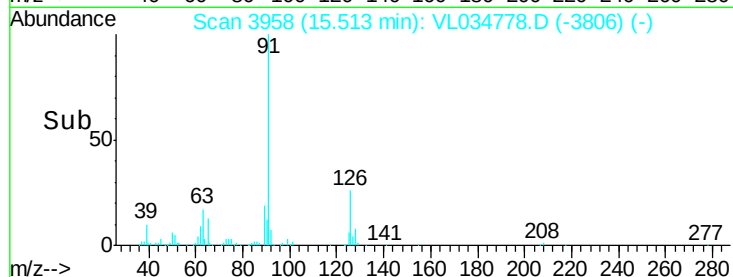
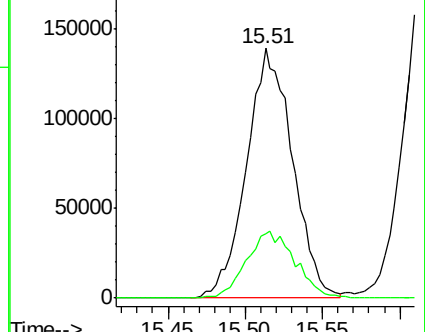
Manual Integrations  
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apatel  
3/4/2020 4:45:00 PM



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 126.10 (125.80 to 126.80): V



#72

4-Ethyltoluene

Concen: 1.042 ppbv

RT: 15.90 min Scan# 4078

Delta R.T. -0.01 min

Lab File: VL034778.D

Acq: 4 Mar 2020 2:42

Tgt Ion: 105 Resp: 281903

Ion Ratio Lower Upper

105 100

120 29.2 23.0 34.6

91 14.5 11.1 16.7

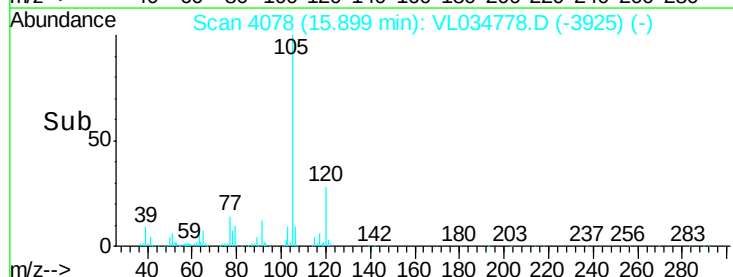
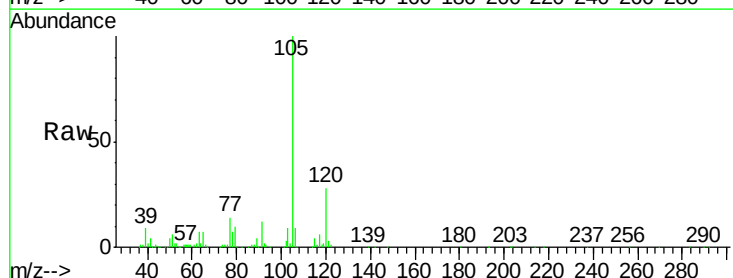
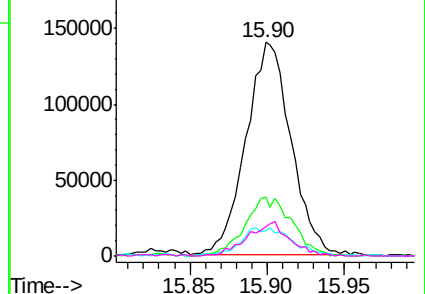
77 15.2 12.2 18.4

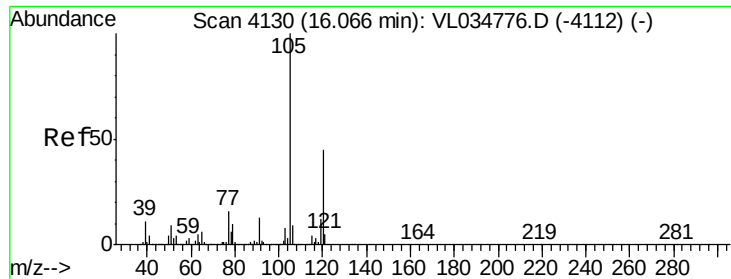
Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0





#73

1,3,5-Trimethylbenzene

Concen: 1.056 ppbv

RT: 16.06 min Scan# 4128

Delta R.T. -0.01 min

Lab File: VL034778.D

Acq: 4 Mar 2020 2:42

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC001

Tot Ion:105 Resp: 275343

Ion Ratio Lower Upper

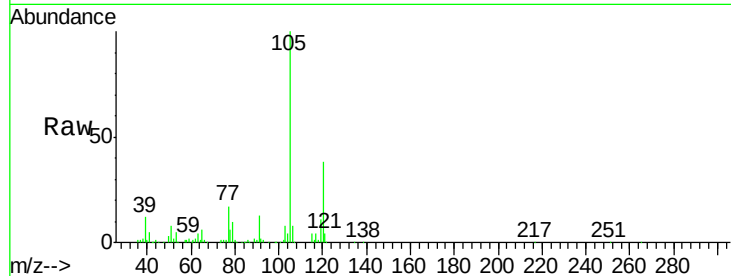
105 100

120 37.2 35.6 53.4

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Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

150000

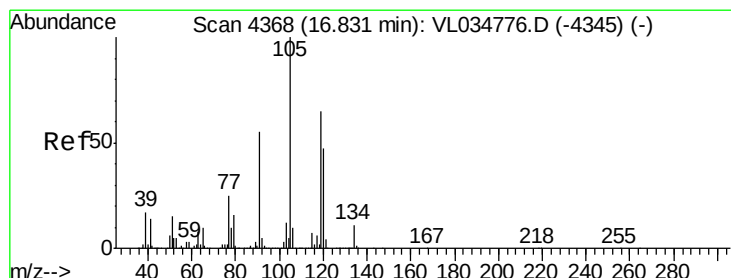
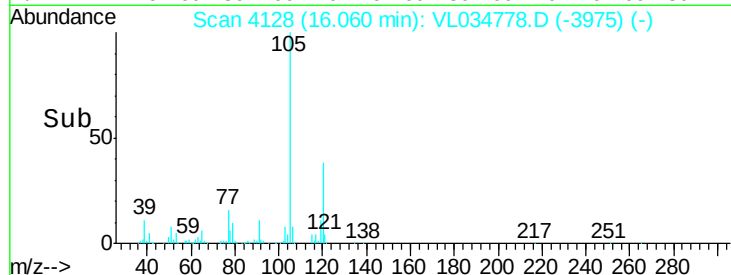
100000

50000

0

16.00 16.05 16.10

Time-->



#74

1,2,4-Trimethylbenzene

Concen: 1.074 ppbv

RT: 16.83 min Scan# 4367

Delta R.T. -0.00 min

Lab File: VL034778.D

Acq: 4 Mar 2020 2:42

Tgt Ion:105 Resp: 309477

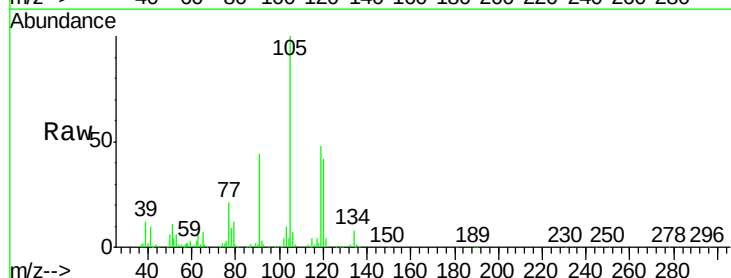
Ion Ratio Lower Upper

105 100

120 40.8 37.8 56.6

91 41.8 43.8 65.8#

77 20.2 19.9 29.9



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

200000

150000

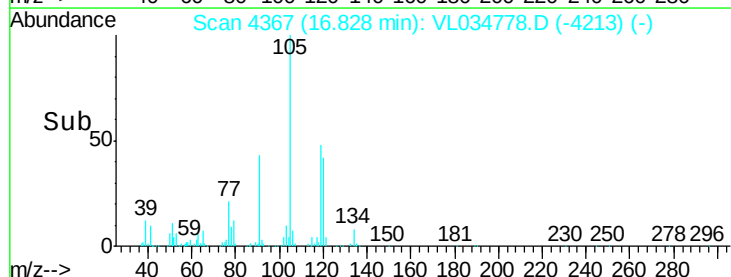
100000

50000

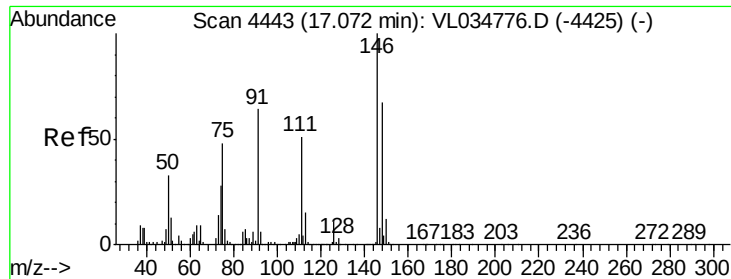
0

16.75 16.80 16.85 16.90

Time-->







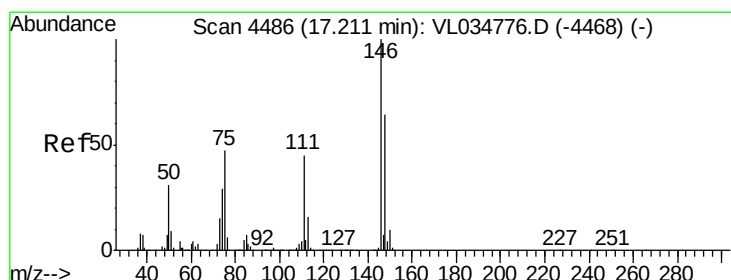
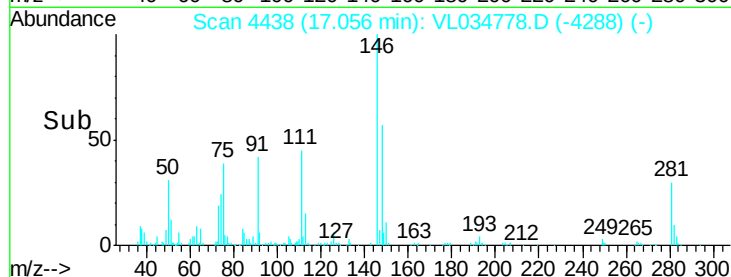
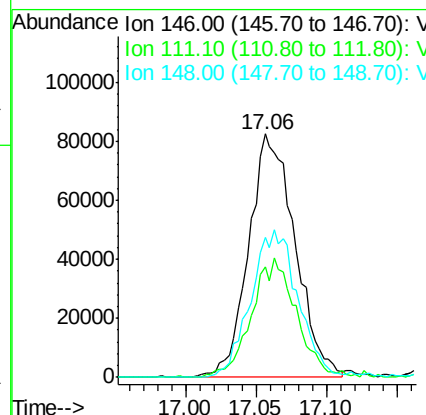
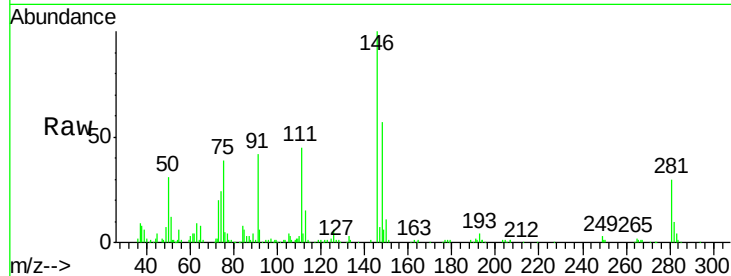
#75  
 1,3-Dichlorobenzene  
 Concen: 1.136 ppbv  
 RT: 17.06 min Scan# 4438  
 Delta R.T. -0.02 min  
 Lab File: VL034778.D  
 Acq: 4 Mar 2020 2:42

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC001

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 47.6  | 24.7  | 74.1  |
| 148     | 62.4  | 31.8  | 95.4  |

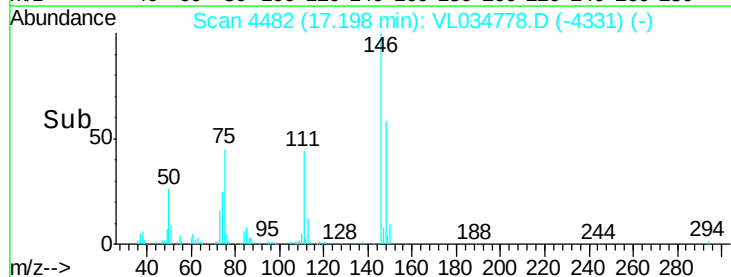
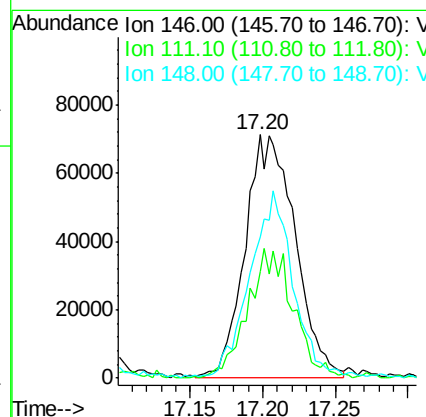
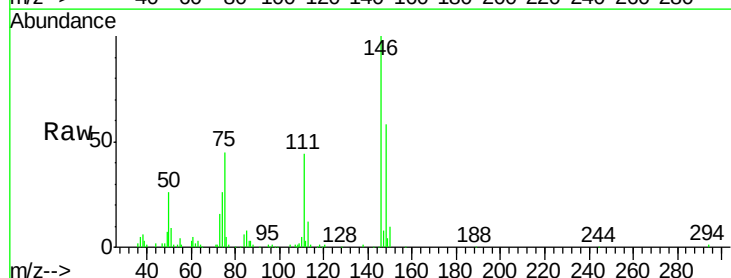
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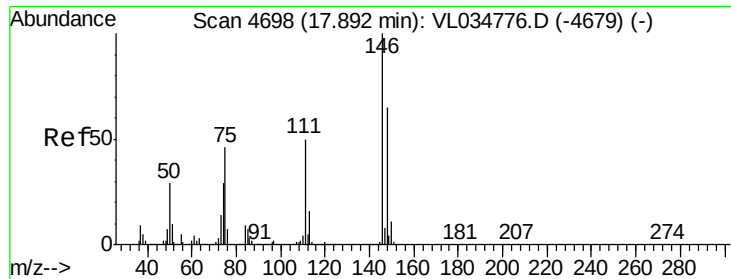
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#76  
 1,4-Dichlorobenzene  
 Concen: 1.033 ppbv m  
 RT: 17.20 min Scan# 4482  
 Delta R.T. -0.01 min  
 Lab File: VL034778.D  
 Acq: 4 Mar 2020 2:42

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 49.2  | 23.5  | 70.5  |
| 148     | 68.0  | 32.2  | 96.6  |





#77

1,2-Dichlorobenzene

Concen: 1.061 ppbv

RT: 17.88 min Scan# 4695

Delta R.T. -0.01 min

Lab File: VL034778.D

Acq: 4 Mar 2020 2:42

Instrument :

MSVOA\_L

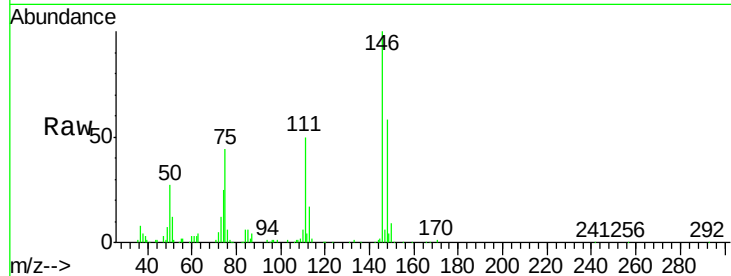
ClientSampleId :

VSTDIC001

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 146   | Resp: | 170394 |
| Ion Ratio | Lower | Upper |        |
| 146       | 100   |       |        |
| 111       | 49.3  | 25.3  | 75.8   |
| 148       | 64.3  | 32.3  | 96.9   |

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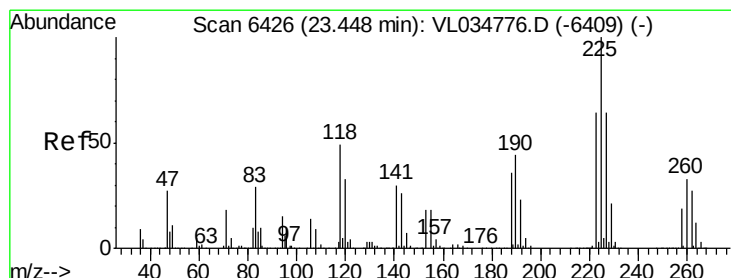
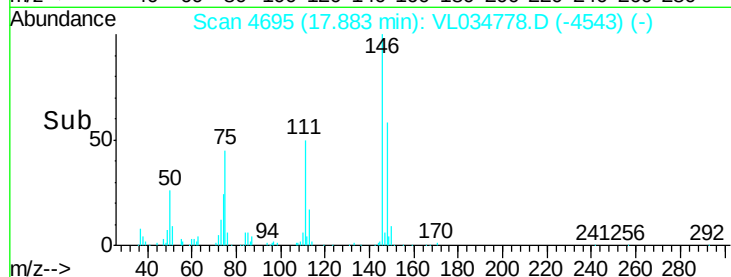
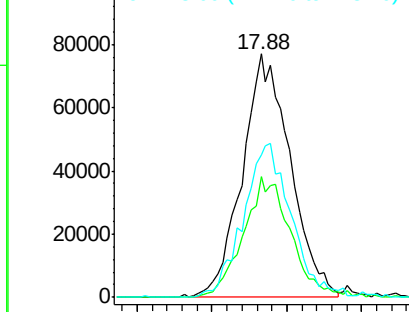


Abundance

Ion 146.00 (145.70 to 146.70): V

Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V



#78

Hexachloro-1,3-Butadiene

Concen: 1.084 ppbv m

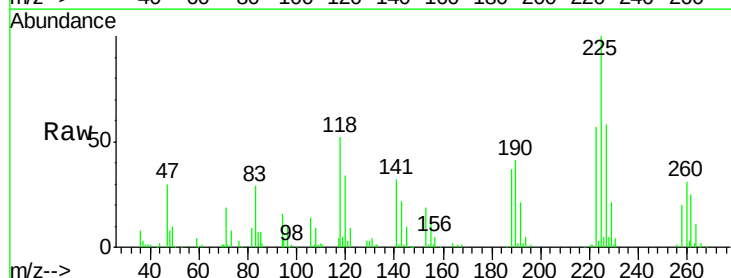
RT: 23.45 min Scan# 6427

Delta R.T. 0.00 min

Lab File: VL034778.D

Acq: 4 Mar 2020 2:42

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 225   | Resp: | 150032 |
| Ion Ratio | Lower | Upper |        |
| 225       | 100   |       |        |
| 223       | 0.0   | 51.3  | 76.9#  |
| 227       | 0.0   | 51.9  | 77.9#  |

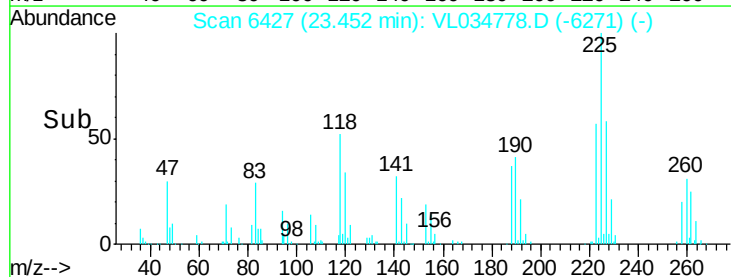
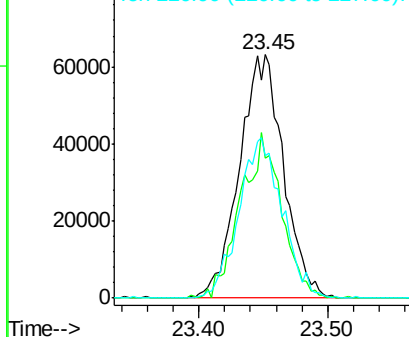


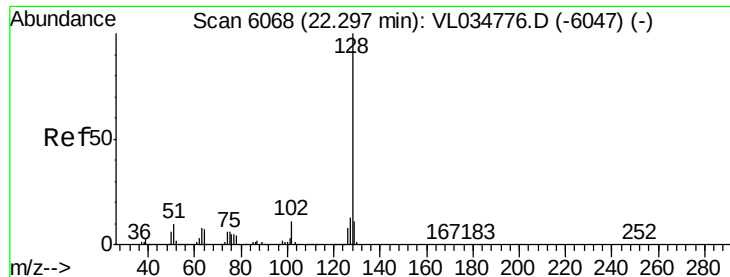
Abundance

Ion 224.90 (224.60 to 225.60): V

Ion 222.90 (222.60 to 223.60): V

Ion 226.90 (226.60 to 227.60): V





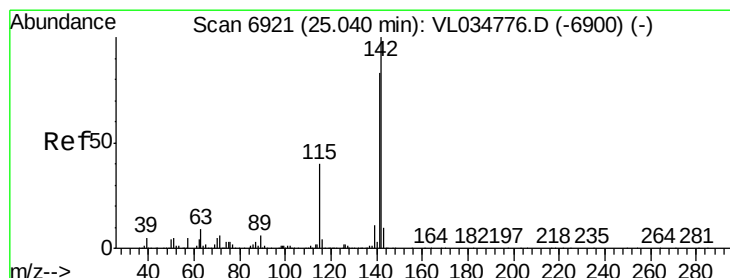
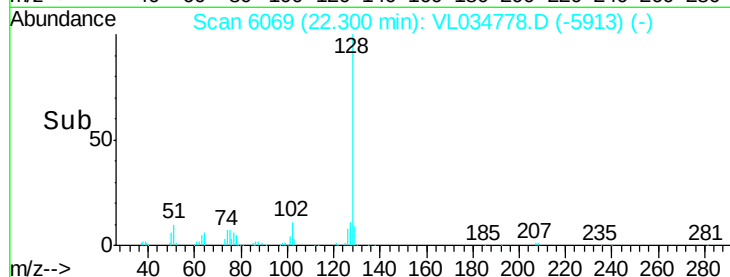
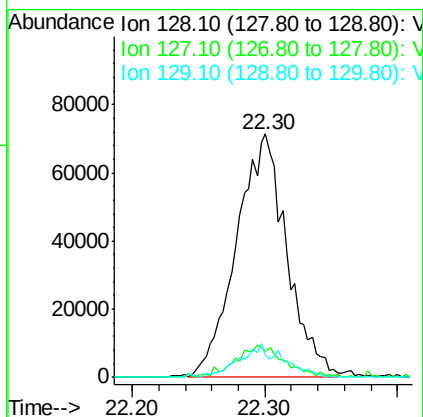
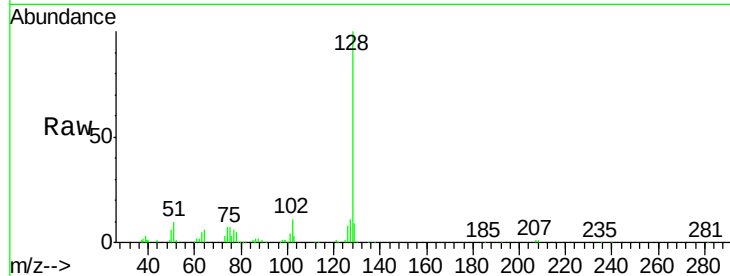
#79  
Naphthalene  
Concen: 0.743 ppbv  
RT: 22.30 min Scan# 6069  
Delta R.T. 0.00 min  
Lab File: VL034778.D  
Acq: 4 Mar 2020 2:42

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC001

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 127     | 9.5   | 10.2  | 15.4# |
| 129     | 9.3   | 9.0   | 13.6  |

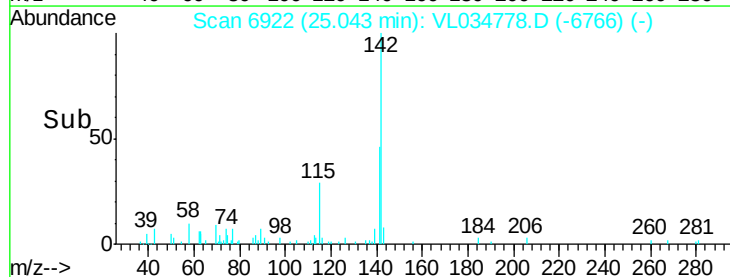
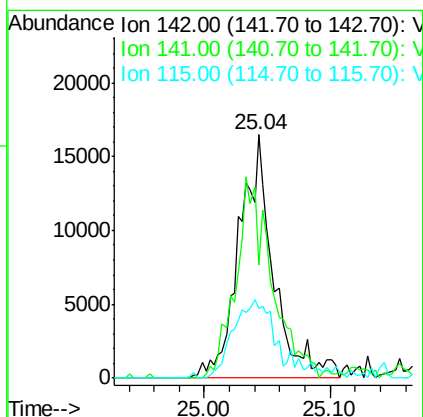
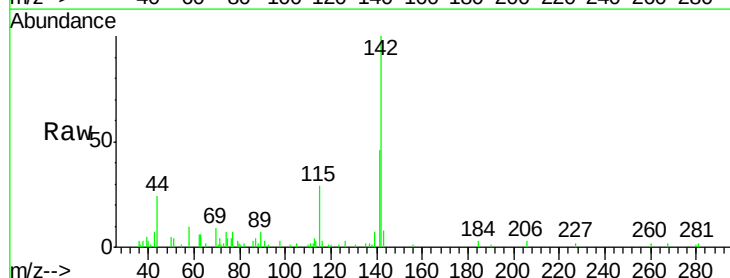
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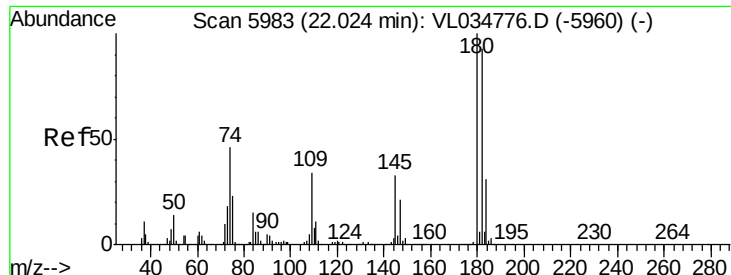
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#80  
Naphthalene, 2-methyl-  
Concen: 0.400 ppbv m  
RT: 25.04 min Scan# 6922  
Delta R.T. 0.00 min  
Lab File: VL034778.D  
Acq: 4 Mar 2020 2:42

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 142     | 100   |       |       |
| 141     | 87.5  | 67.7  | 101.5 |
| 115     | 44.4  | 30.7  | 46.1  |





#81  
 1,2,4-Trichlorobenzene  
 Concen: 0.846 ppbv m  
 RT: 22.02 min Scan# 5982  
 Delta R.T. -0.00 min  
 Lab File: VL034778.D  
 Acq: 4 Mar 2020 2:42

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC001

| Tot Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 180     | 100   | 128595 |       |       |
| 182     | 99.2  | 76.8   | 115.2 |       |
| 184     | 30.4  | 24.8   | 37.2  |       |

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